TOWARDS IMPROVING TEACHING AND LEARNING IN PRIMARY TEACHER EDUCATION AND MEETING THE NEEDS OF ALL CHILDREN

CONTEXT PAPER

For the RESEARCH DEGREE OF DOCTOR IN PHILOSOPHY BY PUBLISHED WORKS

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CONTENTS

INTRODUCTION

The title of this paper summarises the main areas discussed in the research and publications over three decades. It touches upon a number of complex and controversial areas such as good teaching, effective learning, primary education, education for teaching, and special educational needs.

Using the word 'towards' in the title was intended to indicate that some tentative progress had been made rather than that a complex goal had been achieved. However it is recognised that the notion of 'progress' is itself relative and equally as controversial as the claim might be to have 'improved' teacher training or some aspect of it. Even the words 'teacher training' carry a set of assumptions which might need to be questioned such as the issues which currently surround the role of the teacher, and 'training' as opposed to 'education'.

Inserting the term 'primary' in the title is also problematic as it reflects a fundamental controversy in the field and it will be argued that the methods of teaching described have been observed to cross subject and age boundaries. The final part of the title 'meeting the needs of all children' is also a code for having regard to the needs of all children. It will be used to include those with special educational needs, the disadvantaged and controversially in some quarters, the more able. Including the more able forces us to reconsider whether specialist segregated provision in special schools or within classrooms as in ability grouping and differentiation by inputs can be supported or whether the main focus of training to meet their needs should be, as for other children, inclusive forms of learning and teaching. Indeed we may need to reconceptualise special educational needs in terms of 'barriers to achievement' (DfES,

2004).

In the first draft of this proposal the context elaborated was that which may be described in the dictionary definition, "the parts of a discourse or treatise which precede and follow a special passage and may fix its true meaning"; "the structure or fabric" (Chambers Dictionary, 1948; Concise Oxford Dictionary, 1978), con 'with', textum 'to weave'. The paper provided a fabric against which the special passages or illustrative texts were contextualised and linked to the other publications. The process of the evolution of a personal theory and practice of teaching in teacher education was traced and critical learning experiences were reported. This used in part narrative in constructing knowledge and reflection on practice as research methods and this too is controversial. However here it usefully raises the whole question of what constitutes research, what can be regarded as evidence and also the nature of 'good' research.

A concern both in the social sciences and education has been and still is whether 'real' research is only that which is quantitative in the logical positivist mode. In some quarters, qualitative research, Action Research, and Ethnomethodology do not constitute such 'real' research. This issue has arisen again in the Teacher Training Agency (TTA, 2003) project to identify evidence based research and practice on effective teaching. Of concern here too is the fact that the TTA has been specifying the curriculum, objectives and learning outcomes for the training of prospective teachers for more than a decade and now it is revealed that they had not identified the nature of effective teaching or its evidence base. Even the procedures for identifying the evidence base may be seen as problematic and are relevant to this paper.

Finally the word 'context' in 'context paper' is not without its problems in that it has different meanings and perspectives for readers from writers. There are perhaps ten or more perspectives which it might be relevant for this context paper to address, some aspects of which have already been mentioned:-

* the register in which one writes - for teachers, researchers, or the general public. The register of the publications presented is research undertaken and reported for a teacher audience. The books and papers essentially seek to communicate theory, research and practice to teachers and students in ITT.

* the research methodology or methodologies which one uses. A range of research methods have been used in these studies from theory developing ethnomethodologies through to theory testing designs. However ethnomethodology, theory developing research, biography, narrative and the case study are not always regarded as 'real' research in some scientific communities.

* the academic community's view of what constitutes 'good' research. Currently a demand for randomised subjects assigned to treatment groups, rigourous statistical analysis and significance levels are built into searches for evidence based research on effective teaching, but these tactics will be questioned. Action Research for example has been a major vehicle in recent years for evaluating teaching, can this evidence be ignored?.

* the prevailing paradigms in the period of the writing, These constitute the 'Zeitgeist' the spirit of the age, which guide our ways of thinking and believing about what we do, how we think, what we research and how we do it, even determining what we will not accept even

though it may be correct or true.

* the Government initiatives at the time which can form opinion. In the teaching profession there have been many of these as central control has been assumed over all aspects of education at all levels from specifying a National Curriculum to detailing the content and methods by which it will be taught, this all supported by a system of OFSTED inspections.

* the historical lack of relevant theory and research to guide education practice until the late 1980s so that creative induction was sometimes needed. Innovations which were originally ignored, twenty years later can become a new initiative as in Teaching and Learning in the Foundation Subjects (DfES, 2002)

* the problems of engaging in field research and field trials in real educational settings. This can mean that data is missing, results are not neat and union action may intervene.

* the ethical considerations in producing public verifiable evidence. In some areas especially in appraisal research where it touches upon personal and professional practice or poor teaching, strong emotions can be engendered. In special needs withholding potentially beneficial educational experiences from control groups is difficult to justify.

* the changing and fast developing nature of knowledge, theory, research and practice. This is especially the case in fields of educational concern such as SEN, SpLD, EBD and Gifted Education, which are the subject of many of the publications.

* the notions of effective teaching and learning and what constitutes improvement in teaching and in teacher education. Teaching teachers to be effective may not reside in teaching them

how to teach their subject discipline, there may be overarching skills and abilities which cross curricular boundaries and this too has been a significant area of controversy in each of the decades.

There are of course many links between these different contexts and the main one which will be discussed in chapter one is the teacher education and training context. The main researches reported in the publications cover the period from 1981 to the present. During this period we have seen a revolution in the education and training of teachers and in education in schools. This has mainly been led by central government and as such has radically affected the progress of my work on seeking to improve teacher education.

Suffice to say that on entry into teacher education after a typical course of training in college and a 9 year career in teaching there was much that seemed to be impoverishing the education and training of teachers. As I observed it there was a general lack of research into teaching and learning, a lack of relevance in the theory, research and practice courses, a dominance of subject studies without much relevance to teaching in schools, some good professional experience shared but without sufficient backing from theoretical principles and research. A curate's egg indeed but a system in which there was absolute freedom to innovate and change if a tutor so desired. Goodlad's (1991) survey in the USA found similar fragmentation.

My reason for entering teacher education had been the aim to improve the lot of pupils in schools who were seen on the whole to get a very poor deal especially if they had come from the disadvantaging circumstances into which I had been born and brought up. This is still my aim. The main claims in this context paper are closely related to this purpose. These are that:-

1). some methods of transformational learning have been developed for teachers and college students in contact and distance education programmes.

2) a coaching system using formative feedback has been evolved which has helped teachers and students improve their general teaching performance;

3). a method of 'developmental differentiation' has been evolved which promotes inclusion in mixed ability classrooms;

These three themes are not unrelated for the coaching system involves transformation and the teachers and students are of mixed ability and experience and need inclusive but differentiated provision. The education programmes share the ideas on the coaching system and developmental differentiation whilst using the methods directly in the courses. The overall purpose being to try to improve teaching and learning in schools.

Chapter one discusses the changes to which teacher education has been subject from without and which have altered the course of the research and the impact of its outcomes. Chapter two presents an analysis of research methods appropriate to the education field and provide the context in which the main findings may be evaluated. Chapter three discusses the specifics of the claims related to the contexts and the evidence on which they are based. The final section sums up the main points and indicates possible future directions in this research.

OVERVIEW OF THE KEY TEXT

Montgomery, D. 2002 ***Helping Teachers develop Through Classroom Observation 2nd edition*** **London: David Fulton**

The first edition of this book was published in 1999 just as appraisal in the context of

performance management was being introduced into schools (DfEE, 1998, 1999). In the second edition the appraisal background in chapter one is mainly removed and performance management issues, problems and guidelines are discussed. The central theme in the performance management system is to link pupil's learning outcomes or results with teacher performance as defined by the school development plan despite research (Dockrell, 1986) showing that this is a tenuous basis for assessment. Dockrell, then director of the Scottish Council for Research in Education, found that there was no simple or obvious relationship between teaching and learning.

One of the main means for securing improvement in teaching performance is to be by classroom observation of teaching by line managers and team leaders assessed against national standards defined and published by DfEE, 2000 a b). This text critically evaluates methods of appraisal and observation and seeks to provide a constructive and positive coaching system for colleagues to use within a performance management structure which is formative and will promote professional development.

Chapter two presents a review of relevant classroom observation techniques and the issues and problems associated with them. It then goes on to describe the particular system first published as a pilot study in 1984 in the Learning Difficulties Research Project (LDRP) series with funding from the Schools Council. A critical evaluation of summative and formative systems of classroom observation is given and it is questioned whether one instrument can satisfactorily be used for both purposes.

Chapter three traces the development of the research from casework in classrooms to the

pilot study and then to a repeated measures research design project with the attendant problems which field research can present. The data is subjected to both qualitative and quantitative analyses and then exemplified by case reports and evaluations.

The final two chapters move the focus to the underlying principles of the sampling frame which is used in the observation sessions. They deal with the author's conceptions and construction of what is effective learning and what is effective teaching. These are essential discussions as the reader must know the goals towards which the improvement strategies are directed and if necessary dispute these. It is also important to be able to explain why the system used in the lesson observation works and can help a teacher who may be in difficulties recover from that situation. Embedded in these two chapters are some fundamental concepts underpinning the coaching system such as the constructivist approach to learning and cognition. The chapter on learning is essentially derivative but the one on teaching contains a number of innovative features from earlier articles and books. They were innovative at the time they appeared, for example the 'Model of modern teaching' (1981); 'Teaching thinking skills in the school curriculum' (1983); the 'cognitive learning spiral' (1993, 1995); 'developmental differentiation' and 'cognitive process pedagogies' for promoting inclusive teaching in *Managing Behaviour Problems* (1989), and *Children with Learning Difficulties* (1990); and the Cognitive curriculum in *Educating the Able (*1996) and *Able Underachievers* (2000, Chapter 9). This book thus brings together in summary form the main ideas in the areas referred to in this context paper.

CHAPTER ONE: TEACHER EDUCATION AND TRAINING CONTEXTS AND THEIR IMPACT ON THE RESEARCH AND PUBLICATIONS

Introduction

> 'In England teacher education------has been on the receiving end of a raft of government directives and interventions over the past two decades---. The major intention has been to redefine and reconstruct the purpose, process, content and outcome of all programmes and procedures.----The motivation for such action includes a desire on the part of government for greater central control and the assumption that the most effective way of controlling schools and teachers in the long term is to control their professional preparation.' (Barton, 2003 p 18)

During this period teacher educators have frequently been made the targets of derision and have acted as scapegoats for the blame for all the ills in the teaching profession perceived and real. Teacher criticisms have centred upon their experiences of 'all that irrelevant theory' they had to learn and critics outside the profession have referred to the 1960s and 70s as the 'bad old days' in teacher education when 'luny theories' were promulgated.

At this time concerns were expressed by Clements (1975) and earlier by Dewey (1964) that teacher education programmes continued to be dominated by an 'apprenticeship' perspective. Instead of striving to understand and question educational practice in reference to a range of school and societal goals, student teachers were encouraged to view their future roles in terms of how efficiently to carry out currently held explicit and implicit goals.

Dewey suggested that teacher education programmes could be oriented instead to help narrow

the divorce between scholarship and method (p 331). Although doing so did not guarantee teachers would be able to contribute significantly and sensitively to school life (Sarason, 1971). Teacher education programmes could more strongly encourage prospective teachers to become 'students of teaching', people who try to understand educational practice in a thoughtful way, as distinct from only becoming excellent educational 'technicians' (Dewey, 1964).

Edgar Stones' texts were recommended course readings in many education programmes. He argued that the disjunction between theory and practice was a direct consequence of the neglect of the study of pedagogy. His view was that the neglect of the science of teaching, the process aspect of teaching, and the emphasis on the academic content side, led to the transmission mode of teaching and learning.

> 'In this mode the information is dispensed in lectures, seminars or by other media. In their turn teachers employ similar methods. There is ample evidence from the study of learning and teaching that this kind of teaching leads to rote learning with little transfer to other situations. The knowledge is inert'. (Stones, 1981, p 219)

He also stated that there was another important difficulty hampering the development of a theory to enable teachers to be theorists in their own right, capable of self appraisal and this was 'the almost mystical belief' in the efficacy of current practice as it is found in schools, as though observing it would make master teachers of our students and analysing it would yield a quintessential body of principles to guide us in our training.

These words can be seen as prophetic in the light of what has passed in the two decades since

and form central issues which concern us today. Much supervision of practice has been devolved to schools from the colleges embodying the view that current practice holds the key to effective teaching and learning and that an apprenticeship with teachers is a good method for training. Add to this the central specification of the content of what must be taught and we have a classic technician's education. An education which it has been argued is deskilling teachers and hampering their creativity. However Stones, and Dewey were not alone in their concerns and in their attempts to develop a rational approach to teaching and a science of pedagogy. This paper seeks to show the contribution of these publications in the struggle to contribute to a science of pedagogy in a fast changing context which was moving in a contrary direction.

The changing context in teacher education in relation to this research

A pivotal point in the theory and practice debate can be seen when Pauline Perry HMI, Chief Inspector Teacher Training in a speech at a BEMAS conference emphasised the need for self and

> "shared assessment, the development by the profession of its own language and a whole body of expert knowledge related to the teacher's classroom role in helping pupils to learn better and more effectively, and the importance of sharing knowledge between professionals within schools." ------- "Inservice training grants would be directed towards this" -------- "It is my belief that the sharing of our practical skills, and of the transactions of classrooms lie at the very centre of our claim to professionalism"
>
> (Perry, 1983 p 5).

Later she went on to state that as a result of HMI inspections of training colleges and

collecting the views of teachers it was time to remove 'all that irrelevant theory' from the training programmes and focus the assessment in schools. She left the conference before she could learn about a shared language, shared assessment and the relevance of theory to practice in the appraisal work which had been developed in this research and with the pilot schools (Montgomery, 1984).

It was in the same year that Sir Keith Joseph, then Secretary of State for Education, first announced that appraisal of teachers would be placed on the agenda of schools and the Committee for the Accreditation of Teacher Education (CATE, 1983) was established. This appraisal agenda is critiqued in the publications (Montgomery, 1985 a b; Montgomery and Hadfield, 1989, 1990, Montgomery 1999). In these publications it was argued that appraisal should be encouraged but that the 'civil service' model which government espoused was not in the interests of teachers or useful in improving the quality of what went on in classrooms for which they should be truly accountable. As the government bandwagon moved on teachers and schools by 1985 became more hostile to attempts to pursue any form of appraisal work with staff in case it precipitated Union action. This had serious consequences for the appraisal research project which the polytechnic had funded for three years from 1985. Union action did take place as the controlled trials were about to take place.

CATE was to have a profound effect on the nature and conduct of teacher education. It issued CATENOTES which established that courses of training would not receive accreditation if they did not meet CATE's training criteria. Key amongst them were - tutors must have recent relevant experience of the sectors in which their students were being trained and students must have at least the equivalent of 2 years academic study at degree level of the subjects

they were to teach. A critique of the CATE concept of relevance and the concept of subject study may be found in *'CATE and the primary teacher'* and *' Oxbridge influences'* (Montgomery, 1986 a b).

The James Report (DES, 1972) had finally found its way onto the teacher education agenda. At the same time there were cuts in teacher education because of the falling birthrate and colleges were closing or merging with polytechnics and other institutions of higher education. In 1984 the college merged with the local polytechnic. All our College staff were sacked and only 50 per cent were re employed. The rest resigned, retired, were redeployed or made redundant. The polytechnic director favoured the Jamesian model of 3 plus 1 (3 years academic subject study with other BA students and 1 of professional training) for all B. Ed students. I disputed its value for our primary students and refused to lead the case for it at CNAA on the grounds that it was theoretically, practically and professionally unsound. Regrettably approval was obtained and the change was implemented with the first years until it created such student unrest and criticism for its irrelevance to their needs as prospective teachers that it was modified even as the CATE criteria were implemented.

By 1984 the college's separate educational disciplines had been closed and a single theory and practice course had been developed (Perception; Cognition and Teaching and Learning 22 hours; Managing Classroom Behaviour Problems, 38 hours; and a Year 4 option in Learning Difficulties/ SEN, 108 hours). The other Year 4 options failed to recruit and so all students followed this programme. In 1989 this course was closed as revised CATE criteria would approve courses which included 50 hours of Special Needs. This was an advance for institutions where SEN was a minor element lasting for a few hours of awareness training but

was a serious blow to our work for subject staff competing for student time saw this as an opportunity to cut the education course down from 168 to 50 hours. This was despite the fact that students had confirmed annually in course evaluations and HMI in a series of inspections, that this theory and practice work was highly relevant to their practice in primary schools.

The overarching principle espoused by CATE and the subject tutors was that subject tuition should include teaching how to teach the subject. Subject tutors had always held the view that they did do this and some even claimed that there was no need for a separate reading teaching course for primary students as they taught students about teaching reading in their subject areas (history and geography). My research into early reading skills and then dyslexia (Montgomery, 1977, 1979, and 1984) plus writing the Reading course and helping with the teaching demonstrated to me that their claims were patently unfounded

Sir William Taylor, chairman of CATE was convinced that the student study of English would teach them how to teach reading as "Reading is not a subject in the school curriculum whereas English is" (Taylor, 1986). As chair of the World Education Fellowship at that time I led debates with the CATE committee and held WEF/ GB conferences to put the other side of the argument. The recent relevant experience and fitness for purpose of the CATE committee was also challenged. My main thesis was that alongside subject studies, theory and practice courses had a contribution to make to and understanding of general teaching skills and students' theories about teaching and learning. This of course needs qualification in that the theory and practice articulated needs to have relevance to teaching and learning in classrooms.

Questions raised about the relevance of subject teaching to work in classrooms went unanswered, for example the study of two years of academic geography to the nursery and infant teacher (Montgomery 1986 a b) who would be far better employed learning about theory, research and practice in teaching children to read and write. It was argued by subject tutors that their subjects provided students with the study of academic content at their own level. It seemed inconceivable to them that the study of teaching reading might equally supply that intellectual challenge and in fact surpass it since it is usually studied at masters and PhD levels. Students on our 4th B Ed year option in Psychology of Reading were in no doubt about its intellectual challenge; it ran alongside the Learning Difficulties/SEN option until it too was excised following CATE 'regulations'.

The CATE committee was disbanded in 1991 having completed its work. It had changed teacher education to a collection of subject dominated programmes. This all fitted the DES model of teaching as transmission of subject knowledge and the aims it had established for education in schools. It is perhaps relevant to point out that a separate and contradictory document was produced on the subject by HMI (1981) published through the Welsh Office and which was the antithesis in that it referred to attitudes, values,understanding and thinking.

In 1991 appraisal was put on the 'back burner' as schools wrestled with LMS (Local Management of Schools) and the implementation of the National Curriculum. Interest from schools to become involved in the appraisal work died.

In this same year further changes were made to teacher education programmes to ensure that students on PGCE programmes would spend 24 of their 36 weeks of training in schools.

Supervisory and mentoring duties were devolved to schools along with funding and schools could apply to become 'training schools'. This once again depleted the funding of education faculties and more staff needed to be cut. Now as a dean of faculty I needed to retire or redeploy 12 of a staff of 40. Arguments about the lack of economy of scale and the lack of teacher experience and training for such new duties did not hold sway. Subsequently research (Denicolo et al, 1999) and practice (Haigh, 1994) showed that the main people to gain from this experience were the teachers in schools who had developed a better grasp of teaching theory and practice in their mentoring duties. This model of devolving all practice supervision to the schools had been tried by some institutions, often unofficially, in previous decades with a significant lack of success and to the great dissatisfaction of students. Funding and organised support within the school should however remove the other main obstacle, that of insufficient time for mentoring. Nevertheless even in successful schemes problems have arisen in relation to pupils' needs and rights to have trained professionals directing their learning.

The influence of the Teacher Training Agency (TTA) in relation to this research

In 1994 the government appointed a new group to form a quango (Quasi governmental organisation) to oversee teacher education. This was called the Teacher Training Agency. Over the last ten years the remit of this group has steadily expanded. The changes it has made so far can be summarised as follows:-

* opening new routes into teaching that excluded higher education
* defining competencies required of a teacher
* transforming the competencies into standards which the students in training and new teachers must meet

* changing the discourse in education to one of training
* the development of a national curriculum for ITT
* using new forms of OFSTED inspections for quality assurance as a means of control
* separating the funding arrangements for teacher education from HE

Having made the journey from subject teacher to psychology graduate and tutor of teaching programmes linking theory to practice in an applied psychology context it was difficult to accept that central government should assume the right to direct the content and process of teacher education. A partnership would have been more appropriate.

The first edition of the key text had argued against the civil service model of appraisal with its review interviews and lack of attention to classroom observation which teachers themselves held to be the core of their job (Montgomery, 1999). The second edition argued against the transfer of control of training to the bureaucracy and political appointees in quangos as well as the nature of the training proposed.

In the redevelopment of TTA training in schools we can see the steady evolution of the apprenticeship model where the teacher technician (Cochran-Smith et al, 2002) reads the NCC manual and learns the trade by 'sitting by Nellie' and takes on increasing aspects of the task whilst supervised by the 'master' teacher, the mentor. Teacher educators thus have less autonomy than in the past over how to interpret their responsibilities. In gaining TTA accreditation teacher educators must conform to the TTA guidelines and this makes innovation very difficult (Barton, 2003).

The TTA model of training has caused Reid (2001) to suggest that teaching has been over de -

intellectualised and this has been confirmed in the change in the nature of training days and training courses that I have been asked to provide over the last decade (appendix 4). They have moved inexorably from a mix of theory into practice to 'what three things can I do when I get back to school on Monday' or 'ten quick tips to teaching'. This was where I perceived we were in the 1970s

The change in the discourse to one of training and the defining of competencies and standards are factors which have impacted on the research and its dissemination. A critique of competency based training was undertaken in the pilot studies (Montgomery, 1984) and in the subsequent books. In essence it concluded that teaching is more than the sum of the parts and is more complex and dynamically interactive than can be captured in competence lists. Most often competencies and standards require further translational variables to enable them to be enacted. For example Ruddock (1995) finds that one of the factors of an effective school is that it shows respect for pupils. To translate this into a prescription for practice a number of 'How? variables are required. Specifying these is more complex and research on effectiveness of each one would be required. Having specified the competencies for teachers at various levels it would appear that the TTA awaited improvements but without the expected success and further measures had to be taken.

The return of appraisal to the schools agenda

In 1998 the DfEE published the document *Teachers: Meeting the Challenge of Change* and in 1999 the *Technical Consultation Document on Pay and Performance Management.* They had been circulated and discussed in draft form such that the Secondary Heads Association (SHA) in March 1998 made Performance Management the main theme of its annual conference and I

was invited to put the positive side of such a scheme in a 2 hour lecture workshop. This time classroom observation was central to the DfEE proposals recognising it as the key role of the teachers. Schedules and checklists for making these observation quickly followed. Another top down model of appraisal was in development.

The conference showed once again the need that schools had for training in lesson observation methods. The advantages of my positive and supportive system for peer appraisal was presented and the claims that it could make a contribution to improving teaching and learning were understood. Thus a wide range of training inputs about the system followed (Appendix 4) The advantages were that this form of appraisal could be run alongside or become part of any summative system which they were obliged to implement. The essence of the system was to provide formative feedback to the teachers to help in their professional development and enable the school to determine inservice training needs. There was, it was argued a need and a place for such a system in the performance management structure. Classroom observation for accountability using assessment for summative purposes would not necessarily achieve improved teaching and learning outcomes without some form of transformative learning such as occurs in coaching as part of a formative system (Chapter 3).

Within a few years schools have established their systems of classroom observation and with the issue of guidance documents and formats to show them what to look for and how it might be 'marked' have settled into performance management. Once again interest in becoming involved in appraisal research has dwindled as can be seen in the pattern of INSED training days (Appendix 4).

Schools' results have improved according to the government statistics. However research on the subject would as ever show that whatever you train people on their performance on those items is likely to improve. But if teaching and learning had truly improved there would not have been the necessity to bring in the new initiative to improve teaching and learning in foundation subjects (DfES, 2002) or to fund research on the nature of effective teaching (TTA, 2003). We need to question whether the whole movement to devolve training to schools under central control in the apprenticeship mode has been value for the enormous sums of money spent. We appear to have lost twenty years of progress that might have been made.

Conclusions

This chapter has sought to show how the content of teacher education has constantly been subjected to change from without by government agencies. It has indicated that this changing context has radically affected the progress of observation and improvement of teaching in classrooms. It has tried to show how these two have been pushing in contrary directions and criticisms are made of the lack of research and professional experience to justify the changes which have been made in teacher education. These changes have seen the raising to supremacy of separate subject studies and the apprenticeship and training technicians' model instituted by central government. The changes also raise issues about autonomy and creativity in teacher education.

During all this period the aim of the research and publications has not been to nullify the subject studies but to enhance their delivery in classrooms by improving the application of theory to this practice. Because this has been against a continuously changing context

pressing in an alternative direction it has prevented the proper consolidation of theory and practice programmes and cut short the attempts to evaluate them over the long term. It has also curtailed the dissemination projects which are a necessary part of communication and critical appraisal of new ideas and techniques in professional development.

Research can inform teaching and learning and improve it if it is properly translated into and informed by field work. The opportunities for teacher educators to be involved with research has itself been the subject of controversy over the two decades and is the second main context to these publications which will be considered in the next chapter. It will also attempt to deal with questions about the evidence base for some of the studies undertaken.

CHAPTER TWO: A CONSIDERATION OF THE EVIDENCE BASE

Introduction

In the 1970s and 80s as now there was a lengthy debate in the Social Sciences about what qualified as research. Doubt was cast upon the validity of the logical positivism of the experimental paradigm.

Significant figures in the field such as Davidson (1983) had pointed out that it was hardly relevant to do research experiments testing hypotheses in psychology when we did not know what was usual in human behavioural terms as most of the 'relevant' research was on primates or male American college students.

In education, more qualitative approaches and Action Research methodology (Kemmis, et al, 1982) were being advocated. But in psychology and applied psychology things moved more slowly and the controlled experiment was and still is favoured as the only 'real' research with RCTs (Randomised Control Trials) as the 'gold' standard in many research communities.

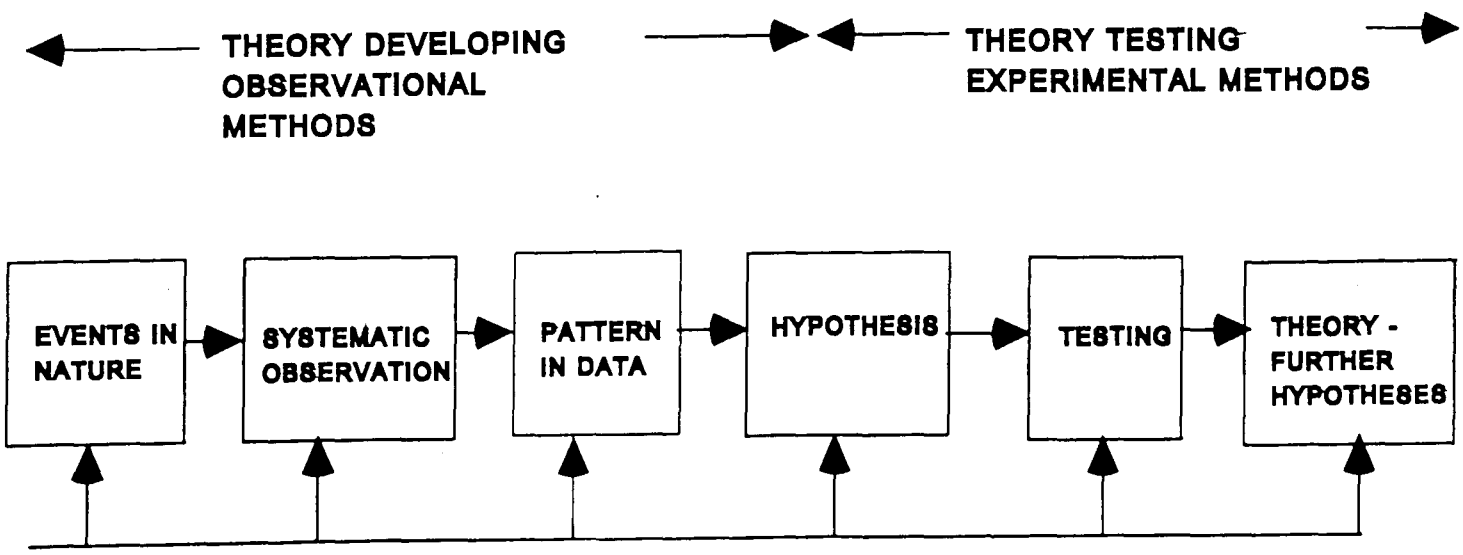
In addition to the quantitative - qualitative debate another emerged within the non quantitative field which has relevance for this paper. Fishman and McCarthy (2000) distinguish these as 'two charter concepts' of teacher research. One is associated with the work of the English educationalist Lawrence Stenhouse and the other with Ann Berthoff, US theoretician and compositionist. Stenhouse's approach (1975, 1985) was to pursue rigorous case studies which he used to illuminate classroom teaching and learning and curriculum development. Berthoff (1979, 1987) advocated an approach which involved writing already existing experiences into knowledge. Both shared some features in common in that they were rigorous

in their methodologies and were systematically linked to wider frames of theory and research. They were not just the personal experience of the teacher.

Although my psychological training at Birkbeck had emphasised the experimental and statistical evidence based approach to research it had been counterbalanced by training in Social Anthropology. Social Anthropology was a very powerful two year subsidiary subject in the Psychology degree programme and made me very much aware of the value of detailed observations of social interactions in field settings, ethnomethodology. It had clear applications to the observation of life in classrooms. The honours option in Clinical psychology which I had also selected led to a keen awareness of the value of clinical observation, diagnostic and case study approaches. Thus it is that the research in the various publications uses each of these methods at appropriate times.

It was the description of the research process, as leading from theory development studies into theory testing approaches, by Entwistle et al (1972) that seemed to link all these methodologies into a coherent whole. As at that time there was little applied research in UK classrooms upon which to build theories to test it seemed appropriate to engage in and report on classroom observations and begin the process of theory development.

Figure 2.1 to show the research process after Entwistle et al (1972)



Research evidence

There are many kinds of evidence which may be considered by researchers and depending on the field, some forms are valued more than others. Types of evidence considered may be observations, documents, word of mouth, diaries, videos, biography, reasoned argument, interview, survey, reflection, introspection and data from experiments. Associated with each are methods which systematise the data collection, its organisation and interpretation in the interest of producing 'public verifiable evidence'.

The valued evidence for the Long Parliament for an historian might be documents of the period, even these would need to be interpreted for the perspective from or purpose for which they might have been written. For the Wright brothers success was that after a period of trial and error their plane flew.

In education things are not always so clear and there are many issues that arise about the nature of the evidence, the potency and value which we assign to it, its relevance, the nature of significance (Thomas, 2004), and the implications of the adoption of a means-end model of educational planning and decision making (Pring, 2003).

When collecting evidence or data in classrooms it is as well to note that there are no absolute or ratio scales which might enable us to count even such simple items as memory span and be sure they were of equal appearing intervals or had real numerical values. Thus any statistics used in the research in the publications tend to be non parametric and do not carry these assumptions nor that the data is normally distributed and randomly assigned.

Teaching and learning are much about interactions in classrooms. They are complex so that

even assigning a conceptual rating scale such as Good, Satisfactory and Poor in OFSTED inspections to aspects of teaching includes much that is about the attitudes and values, opinion and training of the observer. Indeed the training perspective or implicit theory guiding training influences what will be valued in teaching performance and the criteria established to reference it. For example when interactive teaching is favoured and group work is to be discouraged (Woodhouse, 1998), group work sessions may have to be downgraded although children might be learning well and the teacher expertly facilitating both group and individual work. Assigning 'Good' status to a performance is a summary about a myriad of factors between teacher, task and pupils. One or two poor quality interactions may sway one observer more than another despite training, thus it is important for any such definitive evaluation of a professional's performance to be open and negotiable. In OFSTED inspections this is regrettably not the case. It is however part of the process developed in the appraisal research in Key Text 1. It is this openness and sharing of expertise between professionals that links the research to the school improvement rather than the standards model of school development.

Thomas (2004, p 8) puts the kinds of evidence on a continuum of sufficiency as follows:-

Kinds of Evidence:	Isolated observ.	Prima facie or inconclusive evidence	Corroborative evidence	Conclusive evidence
Leading to:	Inspiration	Hunch	Rational belief	Knowledge

The appraisal research began with substantial observations over a period of about six years supervision of student teaching practice (Appendix 2) rather than isolated observations but these did lead to a number of hunches or what Entwistle et al might call 'formative

hypotheses'. These were crystallised in an internal paper to a group of colleagues in 1976, CBG, 3Ms and 4 context variables emerged at this time. These were then used as a framework for collecting corroborative and further evidence up until the pilot studies in 1983 when the developed version of the framework was written down for the observers i.e. CBG, 3Ms, PCI and TLP. It was the papers on the 'Modern model of teaching' (1981) and 'Teaching thinking skills in the school curriculum', and 'Teaching the teachers of the gifted' (1983) that contributed to the construct PCI. These papers did not contain research in the empirical sense but can be assigned to the compositionist model of Berthoff (1979). They were based upon extensive observational research and curriculum development case work in classrooms.

The early stages of the appraisal research followed the **theory developing** process outlined by Entwistle later extended and described by Strauss and Corbin (1990) as **grounded research procedure** as follows:-

* **Recording and counting:** hundreds of lessons, lesson extracts, lesson events and lesson notes were recorded. A range of recording techniques and strategies were trialled at the same time (Montgomery, 1999).

* **Patterning:** observing and noting certain recurring patterns in the data and cues or indicants. In feedback sessions and reflections on lessons, patterns were noted and often cross referenced to theory and other research

* **Coding:** key patterns are named and resorted or categorised and classified during and after repeated observations

* **Clustering:** grouping and categorising activities, settings and interactions during data review and reflection are undertaken.

* **Factoring:** cluster groups are reduced to a small number of factors with explanatory power and which might be renamed, to feedback to students. For example the CBG, 3Ms and PCI of the sampling frame used in the pilot study (Montgomery, 1984).

* **New relationships:** are then sought between factors. For example the concept of the Tactical Lesson Plan was evolved from the data to help teachers structure the learning opportunities of the pupils and the pace of the lesson.

This process of course models the statistical procedure of Factor Analysis when all the data is fed in and patterns and clusters are evoked. It can now be applied with new packages which will undertake conceptual analyses of text (Fieldman et al, 1991). However whilst statistics were not originally involved this does not mean that the process was not rigorous or sufficient.

The sharing of feedback from the sampling frame theory and practice during further supervision of teaching practice enabled the students to focus on key areas for improvement more rapidly and attain higher levels of performance level than previously. They acknowledged this in their reflections and feedback and previous supervisors and moderators were able to confirm this. Students were enabled to conduct 'learning conversations' (Thomas, 1976) with themselves about teaching and learning, reflecting on their practice.

Over the last decade reflection has grown to be a significant and more formal component in ITE programmes (Pollack, 1997). In a sense it has been necessary to replace the educational disciplines with some kind of formal analysis of education practices and outcomes. Reflection has filled some of this gap, perhaps because it requires facilitation skills rather than a

knowledge base to sustain it and moreover because it is powerful in helping students construct their own theories of teaching as part of the constructivist approach to learning.

Deliberation and reflection as methods in the research

> 'Deliberation is purposeful, ongoing, reflective and seeks a deeper level of understanding. Equipped with understanding teachers can adapt or modify the personally held theories that guide their facilitation of the educative process' (Trent, 2003), p 296).

It is this deliberation, which we originally called 'learning conversations' that students and teachers found so helpful and schools would use the constructs as a communication shorthand between colleagues and would have 'CBG' and 'PCI' weeks.

According to Schon (1983):

> 'When someone reflects in action, he (sic) becomes a researcher in the practice context. He is not dependent on the categories of established theory and technique, but constructs a new theory of the unique case'. (p 68)

McCulloch (1995, p 34) calls these personal theories 'practical theories of action'. They have interrelated concepts, beliefs, and images that teachers hold about their work. They guide decision making before and during teaching and guide the interpretative lens in post teaching reflection. As a theory of education tutor it was part of the job to move students from their sometimes idiosyncratic beliefs and views of teaching towards more effective models. Thus the appraisal research was shared discussed and its foundation rationalised with the students. This enabled them to develop and make explicit their personal theories and test them in practice.

An open relationship between staff and students encouraged students to question and critique these rationales. Such relationships were strengthened by the work with experienced teachers and tutors in the In service B.Ed programme, the second to be established in the country (1973). This not surprisingly had a 'Clinical option' after Year 1 which dealt with learning difficulties, child abuse, behaviour problems, autism and other difficulties which might be found in classrooms. Clinical casework in schools followed.

In addition, case work and a study of interviewing skills was also part of the research and development process. It involved a close association over about ten years with local careers services and supporting and sharing in their inservice training (Loudoun and Montgomery, 1976). This enabled a fuller appreciation of the techniques of interviewing to be developed and written into the guidelines in the feedback interviews. In collaboration we also developed a system of 'mentoring' within the local careers service (Loudoun, 1976) later adopted by the Local Government Training Board. Considerable time and explanation is put into the interviewing skills aspects of the appraisal research as well as when dealing with problem pupils in *Managing Behaviour Problems,* some might call the interview a counselling interview, and as such there are certain strategies and skills which need to be imparted from an evidence base.

Ethnomethodological research approaches in the publications

These methods derive from traditional studies in anthropology where time in the field is needed to discover the depth and complexity of social structures and relationships. Gitlin et al (1983) reported on a decade of research by professors and graduate students in education using the method and detailed their own research with undergraduate students taught to do

ethnographic case work in classrooms. According to Jeffrey et al (2004, p 535) it has proved highly successful in developing understanding of social and cultural processes in education. Although the ideal fieldwork time is 2 years (Wolcott, 1995 p77) Jeffrey et al found 'selective intermittent mode' and 'recurrent time mode' as effective and more practical in educational research terms. It is the recurrent time mode which was frequently used in the case studies in classrooms in the publications supporting this proposal. For example, over the years, regular visits on the same day each week were made to a special school (MLD), a residential hospital, to a school for autistic children, to a special needs playgroup, to reception classes, remedial groups, able underachievers and so on. In addition whole days were spent shadowing particular pupils or members of staff in a range of types of schools. Verbal and written reports were given to relevant others after these observations, a series of videos were also made on observational techniques with the ILEA recording unit for teaching purposes. Whilst this counts as ethnomethodology it is not ethnographical in that it does not capture the complete lived experience of the participants (Martin, 1987 p 20). it did however provide an enormous amount of data to be analysed and reflected upon.

In addition to observational research culminating in theory development and testing some of the approaches may also be described as Action Research.

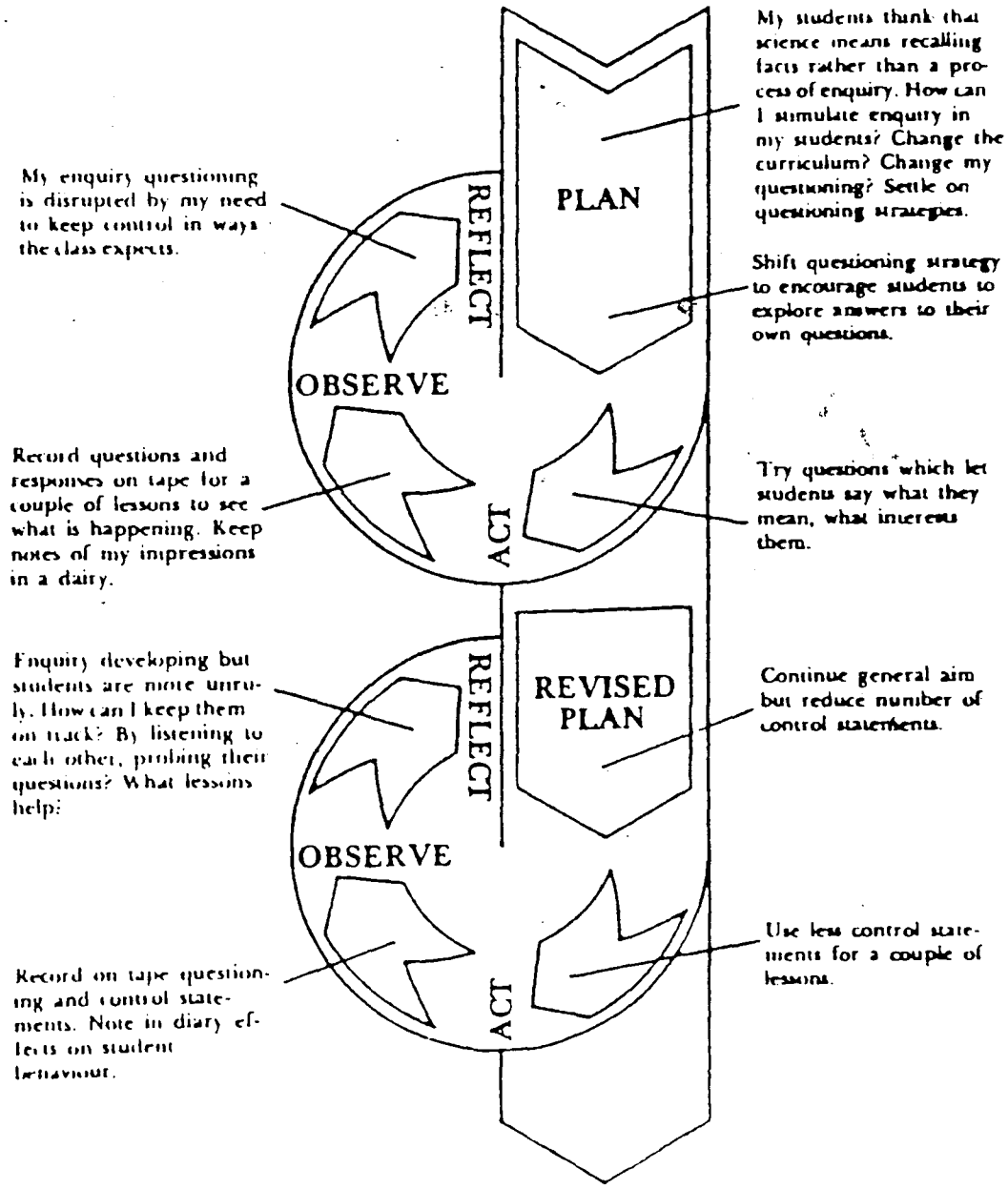
Action Research is not a specific method but ,

> 'a continuing effort to closely interlink, relate and confront action and reflection, to reflect upon one's conscious and unconscious doings in order to develop one's actions, and to act reflectively in order to develop one's knowledge ---- nevertheless some typical broad stages can be found in any action research process' Altrichter et al (1993, pp 6-7).

They specified these stages as finding a starting point, clarifying the situation or the problem, developing action strategies, putting them into practice, analysis, theory generation, and then making the knowledge public.

Kemmis et al (1982, p 11) offered a diagram of this process. They were first to define Action research as a form of self reflective enquiry undertaken by participants in social and educational settings in order to improve the rationality and justice of their own practices and their understanding of them and the institutions in which they were carried out. In education they reported that action research had been employed in school based curriculum development, professional development, school improvement programmes, systems planning and policy development. This supported well the school improvement approach adopted in this research.

Figure 2.2 An Image of the Action research Process (Kemmis et al 1982, p 11)



However we need to add that reflection, deeper understanding and practical theories of action and Action research, need to be supported by a wider reading of the relevant literature and a consideration of others' researches and theories. They cannot stand as research without this connectedness and rigour. This connectedness is to be found in the texts for example on *Learning Difficulties, Behaviour Problems, Educating the Able* and so on in their literature reviews.

It is also relevant to suggest that wider reading often provides models and analogies from other fields which can be used for explanatory purposes as in the Early reading research (1977) which drew on tank recognition studies in perception and the 'Modern model of teaching' (1981) which used Piaget's model of intellectual development as a parallel.

However, once again and in the current climate in teacher education, there has been an undervaluing of these theory developing approaches in the drive for 'evidence based research'. This is not usually a devaluing by experienced researchers in classrooms but more by politicians and administrators and those who enter the research field without a grounding in the profession or without an eclectic education in research methodologies and their limitations. Thus evidence based research needs to be revisited in its new context.

Evidence Based Research on Effective teaching

According to Oakley (2000, p 3) researching practice consists of a number of evidence-practice cycles consisting of a bricolage/hunch stage; an inspirational stage; a discovery stage, a corroborative/confirmatory stage. Evidence Based Practice (EBP) research focuses on evidence at the confirmatory stage and systematic reviews are the method for managing

knowledge in the EBP movement's approach. Although the progress of the appraisal research mirrored Entwistle's research process rather than Oakley's it shows there can be many routes to knowledge, or perhaps that Oakley is undervaluing the amount of observation that is taking place.

The 'gold' standard in EBP research is held by proponents to be the randomised control trial (RCT), however Goldstein (2002) concludes that it does not enable the establishment of causal connections, nor is its use necessary for causal connections to be inferred. Thomas (2004) also concludes that experiments and RCTs do not lead to 'extraordinary advances', they play an important but mundane confirmatory role. This was indeed the purpose of the funded research project, to undertake an RCT of the proposed formative appraisal method such that a sample of trained teachers who were in the process of being dismissed for their lack of teaching skills were enabled to succeed and retain their posts. Subjects would be randomly assigned to one of three treatment groups.

Goldstein also argues that assumptions implicit in RCTs applied to education may be questioned. For example there are problems of stability in before and after designs in classrooms. These were met in the attempts to produce before and after data in the appraisal research, the same children could not always be captured in the design, nor at the same time in the same lesson. The lesson content had also moved on and the method changed as a result. In addition to these typical field research problems there is the fundamental question in this area of **robustness** of test scores and attitude ratings used as 'effectiveness' indicators. In other words educational research is not as controlled or exact as the term 'RCTs' might lead us to suppose.

The observation sampling frame described in the key text was established on the basis of many hundreds of observations in classrooms, noting the patterns in the interactions and what worked to calm pupils or interest and motivate them. The causal connections were inferred in classrooms and tested in the Action Research mode (Kemmis, et al 1982). Their veracity does not depend upon upon an RCT, instead large numbers of other users and recipients have confirmed their value and veracity (Appendix 4). However in the face of demand for RCTs confirmatory professional experience is also often downgraded. If evidence based research is to overemphasise RCTs to the exclusion of other professional evidence can we rely on the systematic reviews of the literature to find this effective practice?

Is there quality in the systematic review?

The TTA established the Effective Practices and Research Dissemination Team (EPRD) in 2003 to identify effective practice in education and research and to disseminate that information to stakeholders. It also commissions systematic reviews of research. It is set up within the ITT support group whose remit is to establish ways of working with ITT providers to improve the training of teachers. This is certainly a useful move, 'to work with' rather than to instruct them what to do and withhold funds when they do not 'do'. It also shares the blame when things do not go as planned.

According to MacClure (2004) systematic review is a backward looking strategy. She holds that the central acts in undertaking a review are reading and writing involving criticising, interpreting, analysing and evaluating. However in systematic review this has been replaced by scanning, mapping, data extraction, and capturing. The system, she argues, is an algorithm for not reading. It begins with the electronic scanning of abstracts. But many articles only

have a title and no abstract so are thereby excluded. The key words then map the field, and data is extracted and articles identified for in depth review.

This may sound highly systematic and scientific but when she shows what happens in practice it can be seen to be a highly suspect process. For example in a review of ITT and formative assessment there were 688 hits screening by abstract or title; 233 were keyworded; 82 were keyworded and mapped; data was extracted from 58; 2 were finally identified to be read and used as exemplars of 'good' practice.

How this relates to the publications here is that neither that systematic review nor another on effective teaching (DfES, 2003) identified any of them even as a hit although they contain much about what is considered to be relevant to formative assessment and effective teaching. The systematic review strategy did not include 'Appraisal' as a key word; it excluded books; and it excluded any articles written before 1989 (DfES, 2003). In excluding books it would exclude much in the Berthoff model of research.

If it had included randomised assignment to treatment groups and control and experimental groups (RCTs) there would have been no articles to be read. In fact the review not surprisingly concluded that there was little or no systematic research on effective teaching. My argument is that the organisers of the systematic review were inadequately prepared for the task, there was a failure to consult widely, a failure to **read** the literature, and that there is a lot of professional experience and writing on effective teaching particularly in the 1980s which could guide current research, before the 'dead hand' of central control took hold. When the data which is to be reviewed in depth from the RCTs is finally identified Yates

(2004) asks the question, 'What does significance look like? Her answer, based on her experience as chair of a review group, is that track record is an important dimension. If a publication finds its way into a general journal such as the *British Journal of Psychology*' then this is seen as of higher acclaim and status than if it gets published in *a* specialist journal such as *Journal of Education for Teaching,* or *Teaching and Teachers*. Large scale effects will leap out as significant in these articles but she concludes that a conceptual advance needs a lot of writing about to show its significance. This is an extraordinarily important point, for teacher educators like teachers have had little time to write extensively whilst in a continuous cycle of response to Government documents and educational change.

Experimental methods in the publications

My role as theory and practice tutor enabled me to spend a considerable amount of time observing and reflecting upon what was going on in classrooms. By pursuing ethnomethodological and action research models with students and teachers often in the form of multiple case studies we could test class control methods and curriculum packages and pedagogies and analyse why they worked. Even the early reading research (Montgomery, 1977, 1979) and then the dyslexia research (Montgomery, 1981, 1984, 1997) followed the case study, observation then the experimental paradigm in the research process described by Entwistle. Although each culminated in the use of the traditional quantitative experimental design they fell short of the randomised allocation to treatments criterion. It was not feasible in terms of tutor time, the number of available subjects and the general constraints of field research (including nearly a year of Union Action) to carry out RCTs. Even the funding for three years for a research assistant was not accompanied by a reduction in teaching and

administration commitments.

The research hypothesis was that if a failing teacher could be converted into a satisfactory one by being observed and receiving a feedback session using the sampling frame method and be seen to have improved on a follow up observation in the presence of an expert teacher observer, then the four dimensions of teaching could be said to underpin effective teaching. Manipulation of individual variables had not proved effective in the observational studies.

The term 'failing' referred to four teachers who had been referred to the research project because the school had put much time and effort into supporting them but parent complaints had made it clear that they must be asked to resign, unless the project could help them. The project also offered the opportunity to discover if other teachers, the four deputy heads, could be trained to use the system with effect

The formative hypothesis was put to the test and after two observation and feedback sessions all four teachers had improved sufficiently to retain their jobs and their progress was confirmed by the independent observers and the summative assessment scale. The statistical analysis even on such a small number showed significant gains in performance. However the real test was more in terms of the Wright Brothers model of success, they 'flew'.

As a result of this pilot study a grant to employ a full time research assistant for three years was won from the polytechnic in keen competition with the other faculties. The research design was to be a confirmatory randomised control trial (RCT) design. Teachers identified as in difficulties by schools in the region would be randomly assigned to three treatment groups (sampling frame, checklist, and repertory grid) to find which method of observation and

feedback, if any, improved performance.

The programme was set up and the research assistant was trained in the techniques. Union action intervened and curtailed the programme. Access only to Newly Qualified Teachers was finally arranged and to the full staff of a large infant school after a demonstration session. This illustrates the problems of field research. Nevertheless some useful results were obtained on the effects of the system for satisfactory and good teachers and later further data was collected on an ad hoc basis on 'failing' teachers and from nursery, infant school and secondary teachers during case work and reported in Key Text 1.

It was found that even in the decade well after the introduction of the national curriculum the method was still relevant across the age groups and subjects. The variables in the frame still had the potency to enable teachers to improve their performance and it still had relevance to constructions on effective teaching. Other teachers could also be trained to use the method effectively. Appendix 4 contains the list of schools participating in the training since 1998.

It is also interesting that the area of PCI, now developed in the more recent publications, especially the second key text (1998, Appendix 1) and chapter 9 (Montgomery, 2000) and related articles on 'Underachievement' and 'Barriers to Learning' as the **Cognitive curriculum** has been reinforced by the DfES (2002) initiative on *Teaching and Leaning in Foundation Subjects at Key Stage 3* and soon to be rolled out to Primary schools.

Over a number of years the positive approaches to learning and teaching described under CBG have also gained ground in schools at all levels and is likely to become another 'initiative' in dealing with difficult behaviour. What has not yet become current is the view

put forward in an unpublished paper in 1990, that the methods of 'delivery' promoted by the National Curriculum and its associated guidelines would create more learning difficulties, behaviour problems and underachievement in schools, but there is evidence accumulating to support this in my current observational studies.

Conclusions

The argument seems to me to be persuasive, that in the study of human nature in classrooms we should not believe that the only method appropriate is that of the natural sciences with randomised trials, quantitative analysis and statistical manipulations. Fortunately in recent well funded research we do see a range of methods being used but sometimes the collection of data is of the kind that seizes all possible in the hope that some significant connection may crop up later or even a causal connection may be found.

Because in the early stages of this research there were so many problems to be explored it was essential to pursue research on a number of fronts at the same time. It was also essential because of lack of research time, that data was collected as part of the normal role of teaching and tutoring activities and the teacher - researcher model of Stenhouse was adopted. The alternative was according to Gitlin (1983) to be deplored, and that was of an Education Studies department too busy transmitting information about the sayings of educational sages (and now government documents) to address themselves to the issues about theory and practice.

In the first phase of the appraisal research, observation in hundreds of lessons, enabled an overview to be taken across subject areas and phases of education from nursery to further

education. The conclusions derived suggested that there were not specific teaching skills related to subjects but general teaching skills which were applicable across the range of subjects and ages. This was not new for Dewey had concluded this in 1964 and Stones. in 1981 wrote;

> 'I suggest that there are general teaching skills that cut across subject boundaries and are applicable to all fields of knowledge," (p 225).

In searching the literature for specific pedagogies for subject teaching he found there were none, and this was confirmed in the studies in these publications. However we find this being revisited in current DfES (2003) studies on effective teaching.

Stones also found that in most training institutions in the UK supervisors of teaching practice were recruited ubiquitously on the assumption that once appointed to the staff in whatever field they were qualified to supervise students on teaching practice. With few exceptions (Stones, 1977; Stenhouse, 1981) little attention was paid to the systematic training in supervisory skills. The same appears to be true today except supervisors and mentors are now armed with a set of one hundred or more competencies to check off, and are given a 'familiarisation' session on these. How far the supervisor in school or college can and should be held accountable to these can be disputed (Key text 1).

According to Stones (1977) in the act of supervising practical teaching, pedagogical theory, practical teaching and the study of the main subject come together. It demands highly skilled people, knowledgeable about the principles of learning, and sensitive to problems of interpersonal relationships in the supervisory interview. We can add it also requires substantial subject knowledge across many domains when working with ITE students. This

can be built up through experience in classrooms and with the opportunity to consult and involve colleagues who are subject experts in these fields. Stones advised against the atheoretical 'sitting by Nellie' approach in which there was no theory altogether and only the recherché offerings from Educational Studies that did not relate to the actual practice of teaching.

What counts as effective research is again under the spotlight and effective teaching is to be uncovered by a consideration of what is termed Evidence Based Practice (EBP) research. It has proved useful in medical research into the effects of drug therapies for example, but it would appear that these situations are not comparable to the problems needing investigation in education

The research reported in the publications under consideration can be seen to use a range of research methodologies. It becomes quantitative in the reading, dyslexia and handwriting researches, case study and ethnomethodological in the curriculum and teaching investigations and compositional in some of the rest, the areas in between, such as early explorations in contact and distance education programmes. Both ethnomethodological and compositional researches fall under the theory developing mode and lead eventually to the development of formative hypotheses which may lead to testing and eventually produce quantitative data. It is this area of research which seems to me to be most exciting and creative making the quantitative studies more mundane as the answers are already in essence known.

A variety of questions about teaching have been pursued in the researches reported in the publications presented and a wide range of complex factors have been identified as relevant to

the process. In a sense all of the research can be seen as theory developing research with some confirmatory explorations. Much of it now needs more time to be devoted to it than the part time research of an individual allows. It needs the sponsorship of 'significant others' and funding. However in a climate of competition for funding and recognition neither is likely.

For me it does raise issues about who should be undertaking research in teacher education. Teachers should research their own practice but so should teacher educators. Teacher education and training it has been suggested is of a different order from teaching pupils in schools. Approaching teacher education research from the teacher educator subject position or from the researcher's point of view however many practitioners become involved, can lead to critical factors being overlooked.

Variables which are causal may also easily be missed in the systematic reviews. This is because the researchers are either not embedded in the education disciplines they need to draw upon or they have no direct experience or in depth knowledge of the educational practices which they are investigating. Adding on teachers to this group does not solve the basic problem of relevance. It does explain the cyclical nature of concerns and explorations noted in this chapter. Not only are issues revisited but they are 'visited' as though nothing relevant previously existed and it is this that delays progress in the development of our knowledge about pedagogy.

The second issue governing these cyclical investigations was discussed in chapter one. the policies of central government and the assumption of central control. It has to be remembered that it is the government and its related agencies which is funding much of the current research

and this can influence the independence of researchers, guide the direction of research, the methodologies used and the findings which are reported.

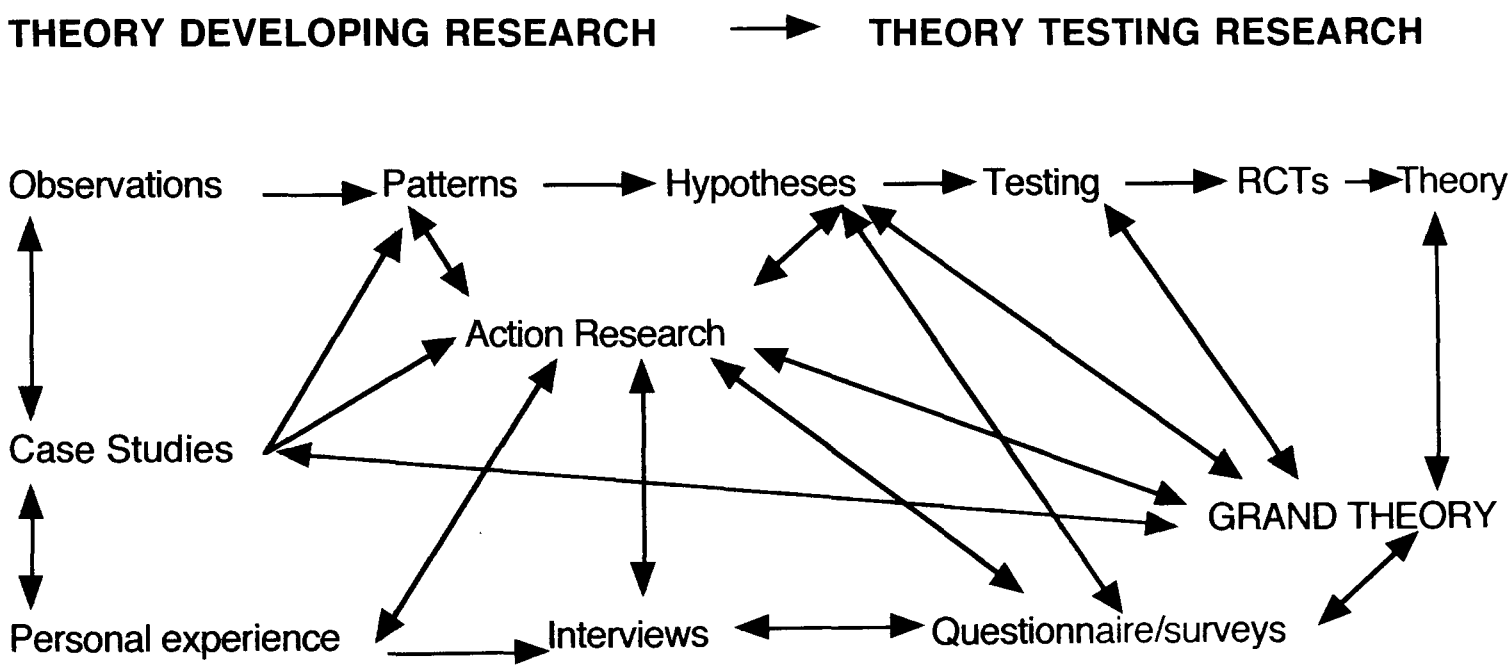
Seeing teacher educators as mediators in the process where 'big research' is carried out in research centres by university researchers, 'professional researchers' (McIntyre, 1996) and is passed on to teachers in schools in the hub and spoke model relegates them once again to the old Education Studies model. Teacher educators as well as teachers need to research their own practice and not just be regarded as 'amateurs' in that process. In addition because there is no disciplinary fit between educational research and teacher education according to Kushner (2003) the notion of 'big research' mediated by teacher friendly intermediaries is not desirable in any case, it is more rhetoric than practicality.

However there is a closer fit, it can be argued, between educational research and theory and practice teacher education grounded in the applied disciplines of psychology, sociology and philosophy. In chapter three some of these relationships will be explored further to illustrate the assumptions made and their evidence base.

The Research Assessment Exercises held promise for research in teacher education by spreading funding more widely. Research was promoted in a wide range of institutions and not just in research universities relegating the rest to become teaching institutions. The effect of now focusing the major funding to '3b to 5' institutions has struck a serious blow to developmental research with its wide range of individual and exploratory studies. A better balance between the two needs to be established so that studies such as those once promoted by the Schools Council might again flourish.

Despite these caveats, no doubt guidelines and targets on effective teaching will surely follow the TTAs' project on *Using Research and Evidence to Improve Teaching and Learning*. But can the research from their newly commissioned RCTs supply the answers? A tight experimental design with carefully controlled variables neatly and singly manipulated is unlikely to cope with the 'Darren' factor in classrooms or reveal anything really useful that teachers and teacher educators did not already know.

Figure 2.3 summarises the types of research discussed in this context paper and tries to put them into an extended version of Entwistle et al's model



The purpose of this model is to suggest that evidence from many sources can give valuable insights, provide verification, and offer a more robust understanding of theory and practice in teaching and learning.

CHAPTER THREE: THE EVIDENCE BASE FOR THE CLAIMS MADE

Introduction

The main claims which have been made in this context paper about the content of the publications are that;-

1). methods of transformational learning have been designed for teachers and students in contact and distance education programmes.

2) a coaching system using formative feedback has been developed which has helped teachers improve their general teaching performance;

3). a method of 'developmental differentiation' has been evolved which promotes inclusion in mixed ability classrooms;

In this chapter some of the issues surrounding these claims will be examined in relation to the context and their evidence base.

In 1981 funding was obtained from the Schools Council from Programme Two *Helping Individual Teachers Become More Effective* and Programme Four *Meeting the Needs of More Able Individual Children in Mixed Ability Classrooms* The two LDRP projects feeding directly into Programme Two were *Managing Behaviour Problems (*1984) and the *Evaluation and Enhancement of Teaching Performance* (1984). Those feeding into Programme Four were *Teaching and Learning Strategies: Study Skills* (1983) and *The Special Needs of Able Pupils in Ordinary Classrooms (1985).* Some of the projects began by using literature research and the case study method to test theory in practice others began from experience and observation of what worked in classrooms, the writing into knowledge (Berthoff, 1979) and the search for theory to explain it.

These research methods have been discussed in chapter two. In this chapter the evidence base for transformational learning, the sampling frame and developmental differentiation will be discussed and their relationships in seeking to improve teaching.

1. Methods of transformational learning

In 'seeking to improve' we need to have explicit notions about 'good teaching' or in current parlance 'effective teaching'. In the past it was not uncommon for a whole teacher education programme to have passed without an analysis of these concepts which seemed unreasonable to me. Thus an explanation of what is considered 'good teaching' was attempted in many of the texts and articles under consideration. Unfortunately it diverged from the models being promoted in government documents from James and CATE onwards.

Emerging views of teacher effectiveness

One of the first attempts to determine the nature of effective teaching in which I was involved was Programme Two of the Schools Council (1980). It set out to use the evidence provided by the recorded experience of teacher researchers to define some of the characteristics of effectiveness that needed to be refined "in the absence of a general consensus about what constitutes good teaching".

Programme Two was designed to encourage teacher professional development through enabling them to research problems in their own classrooms:

> ' For many years teachers have been regaled with theories about education. Often these theories have seemed somewhat remote from the world of the classroom, and teachers have argued that few of them have been based on the direct experience of teachers in

their day to day work. It is only in recent years that classroom observation and investigation by teachers themselves have begun to play a part in educational research. To inform, develop and give credibility to educational theory, more research is needed by teachers themselves" (Schools Council Briefing Papers, p3).

This notion followed from the work of Stenhouse (1975) among others who argued that it was not enough for teachers' work to be studied they must study it themselves. Wedell (1981) subsequently recommended this approach to tutors and teachers in the area of special needs if research was to be relevant to the pupils. Their views reinforced the work I was doing. I found I needed to research not only what and how I taught but also the impact this had on student teachers' development as teachers and the impact of their teaching upon pupils' learning. It is the sort of real world problem that has no beginning and no end. Every action and reaction could become the focus of study in this Action Research approach. Not surprisingly the LDRP had six project themes running at the same time. As the inservice demands changed one or more of the projects would receive more attention than the others. At this time large numbers of school based 'customised courses' within the six surrounding LEAs were undertaken (free of charge) so there were substantial opportunities for research.

The VITAE project (Day et al, 2004) is a four year study of teachers' work, lives and their effects on pupils undertaken by researchers at the University of Nottingham and the Institute of Education, University of London and funded by DfES. The remit is to assess teacher effectiveness in relation to outcomes from robust quantitative and in depth qualitative data on a national sample. Effectiveness is defined by using Baseline assessments and value added assessments derived from SATs to determine the pupils' progress taught by the teachers

involved. VITAE is attempting to provide the 'most holistic map to date' of teacher effectiveness and the overall rationale is that:-

> 'Expertise, capacity, personal and professional biography, situational and psychological factors as well as the complexity of the pupils whom they teach and changes over time and circumstances affect teachers' effectiveness. Thus, any attempts to sustain initiatives aimed at raising standards in schools and classrooms and to retain high quality teaching are unlikely to succeed without a more comprehensive understanding of teacher effectiveness, its complex configurations and its antecedents' (p 3).

It is good that such data is to be collected and in doing so must not impose undue pressures on teachers. It will triangulate data from teacher self report and interviews, pupil questionnaires on teacher behaviours and pupil progress. However there are a number of reservations I have about it:-

* is effectiveness in teaching only to be defined in terms of 'standards' in achieving value added SATs scores?

* do SATs really define pupils' achievement in learning?

* where is the analysis of the processes by which the teachers achieve higher learning outcomes with the pupils?

* when a sample of 1500 is surveyed with 300 cases reviewed in greater depth, are many of the so called 'complexities' of teacher lives merely noise in the system which professionalism usually manages to overcome or override for long periods?

* how can a study of teacher effectiveness be valid without classroom observations and analysis of teaching?

Broadhead (1987) was convinced that any model concerned with enhancing teacher effectiveness and thus ultimately with improving the quality of learning should incorporate three paradigms,

'the model itself, a framework for improving the effectiveness, and an opportunity for teachers to examine critically their personal philosophies of teaching and learning' (p 70).

If we examine the DES model in *Teaching Quality* (DES, 1983) of effective teaching and how to improve it in Broadhead's terms we can see that then as now (DfEE, 1999) the model is a prescriptive checklist, the framework is classroom observation with the checklist, and the opportunity is for the teacher to become acquainted with his or her difficulties and act accordingly.

In the VITAE project we have the model which is based on value added learning outcomes in SATs. There is to be a picture created of 'the effective teacher' in a web of external and internal vectors and constraints, no framework for improving quality and the DfES will decide what should be done to teachers.

In my 'model' (Montgomery 1981, et seq.) the effective teacher is one who 'enables the pupils to think efficiently and then communicate those thoughts succinctly' whatever the subject, the field or the level in which they operate. The rationale for this lies in constructivist theories of learning (chapters 4 and 5, Key text 1). It is set within social and developmental contexts so that important aspects such as social and emotional development are supported. The 'framework' is the sampling frame method of classroom observation with detailed formative feedback. The 'opportunity' is for the teachers to reflect upon the teaching and learning events in the record with the observer as coach in the feedback interview and to

negotiate further teaching and learning targets.

Broadhead's own model was one which the practitioners themselves proposed, they identified strengths and weaknesses with colleagues and outside agents. They then reflected upon their professional development and factors effecting current and future development. This system is more open than the DfES model but the assumption that teachers can and do propose a model of effective teaching is not born out by the facts, they come up with nebulous concepts, or a synthesis consisting of the latest DfES guidelines and the school checklist. In order for a group of teachers to come up with a coherent theory of effective teaching Adelman (1990) found it took them over two years of regular fortnightly seminar meetings.

Notions of effective teaching certainly need to be concerned with outcomes such as enhancing pupils' learning. However there are issues about what is considered to be effective learning that are implicit in our views of teaching. To effect change these need to be made explicit and explored (chapter 4, Key text 1).

In addition to this there is the societal context in which the learning takes place and then the one for which the pupils are being prepared. This has led theoreticians such as Resnick (1989) and Paul (1993) among others to suggest that there is a tendency in education world wide to educate pupils for a 19th century culture when we need to educate them for a 21st century one. This use of terms 'teaching' and 'education' also illustrates another area of debate. In my experience there can be many effective teachers but few of them are great educators in the wider cultural sense. In personal terms the only educator I experienced was not a particularly effective or good teacher but the imaginative incidentals opened a world of culture which have

remained with me. He contributed to my lifelong learning.

Perhaps none of this is surprising when we see that mass education techniques only stem from the late 19th century. Over 125 years it is not surprising that methods of teaching too can be seen to have evolved. This process was outlined in the paper ' A modern model of teaching: Education comes of age' (Montgomery, 1981), and analogies were made with stages in Piaget's theory of intellectual development. Teacher education as I perceived it was then moving from the concrete 'transmission mode' towards more problem solving orientated 'formal operational' approaches. However changing practice is closely bound up with changing attitudes and constructs and is not so easy. Lecturing or 'telling' students about all this was quickly found to have little effect on their subsequent practice in classrooms.

Transformative learning in teacher education?

Fuller et al (1975) identified a three stage model of student teacher development. There was a shift from preoccupation with self to a focus on tasks and teaching situations and then to the impact of their teaching on pupils. However this was disputed as other researchers could not find similar evidence. Sitter and Lanier (1982) for example found that concerns about self, teaching tasks, materials and curriculum development occurred simultaneously and were dealt with concurrently by the student. More recent studies by Burn et al (2003) rejected the stage model of teacher development because it obscured the complexity of process, the enormous variation between individuals and starting points as well as thinking development. Their students were preoccupied throughout their programmes with pupils' learning outcomes. This is hardly surprising in the current context and has most likely resulted from the national changes in the teacher education curriculum and the reduction of choices about curriculum

because of the national curriculum and the focus on learning outcomes (DfE, 1995).

Overall it would appear likely that the lengths of the programmes BED /PGCE with their different entry routes as well as their content and form helped give rise to the type of model of student development seen earlier.

This brings us to the issue that what teachers do does not necessarily constitute what they should be doing. Students arrive at college with very clear ideas about what good teaching is. Not surprisingly it appears to be very much modelled upon their own experience of schooling (Zeichner et al, 1981). Such attitudes appear to be deeply embedded in the unconscious according to Lortie (1973, 1975) and Hogben and Lawson (1982). They found that student teachers entered training courses with models of teacher behaviour towards schooling internalised. There was a stability in their attitudes and a low regard for theoretical concerns. Their views of the good teacher were centred on the transmission model (McDiarmid (1990) hinged on the notion of telling or showing and that for many, learning equated with remembering rather than the development of understanding and this had not changed radically over two decades. Raths (2001) suggested that teacher education programmes were largely ineffective in improving the current practice of teaching and was not the first to do so. For example, Korthagen and Kessels (1999) confirmed that there was a lack of transfer between the theoretical content of preservice programmes and teachers' practice and once in teaching McNamara (1995) stated:-

> 'Many attempts have been made to change curriculum delivery over the years by introducing new ideas through in service training, legislation and management pressure. Many teachers have resisted those pressures to change and changing teacher attitudes

has proved to be very difficult to achieve, some would say impossible to achieve' (p 17)

Jones et al (1996) put this resistance down to the pressures of being a full time teacher. The first year in teaching was often both 'risky' and transformative. Added to these pressures we have had the Chief Inspector for Schools (Woodhouse 1998) over a period of years demanding that teachers engage in more direct teaching of the whole class and OFSTED inspections being used to reinforce this, driving teachers towards the transmission model. In addition the National Curriculum with its 10 separate subjects, even after it was pruned, forced teachers into a preoccupation with transmitting the syllabus knowledge and this is most easily done through 'direct' teaching methods. Pupils from this system now entering college are also likely to have these methods deeply embedded in their subconscious. In fact when we use other methods with pupils in schools they often do not think that it is 'real' school work especially when they are having fun.

If, as appears to be the case, we use implicit theories to evaluate new ideas then those which are compatible may be recognised and adopted whilst those that contradict and challenge are dismissed as 'too theoretical', 'unworkable in our situation' or just plain wrong. The notion that teacher attitudes to teaching and learning need to be changed carries with it the assumptions that they have the 'wrong' attitudes and others 'correct' ones and this is also where the evidence base needs to be considered so that these different views can be evaluated with reference to theory, research and practice.

Recent studies by Kroll (2004) showed the difficulties experienced even by trained teachers on a masters programme in transforming their theories about teaching. She traces the changes

in students' ideas over three years from naive perceptions based on their teaching and pre service education programmes towards embracing a constructivist theory of teaching and learning. Her course was an Advanced Child development seminar programme based on readings with 20 teachers. She does not test whether changing theory leads to changes in classroom practice but points to examples in the learning logs and reflective diaries. As personal theory rather than 'grand' theory does tend to direct our behaviour, she may well have obtained some transfer.

In sharing the sampling frame and using the coaching system with teachers there was a distinct attempt to change the views they held about effective teaching. In a small number, the most difficult cases, they could see the reasons why the suggestions would work and agreed to try them but lapsed into their former practices almost instantly as Scott MacDonald (1971) also reported. This limited the support they could gain from the pupils' responses and more coaching was needed actually in the classroom.

In the other publications relevant to this research there is a variety of attempts reported to effect changes in teaching constructs and behaviour. It was first in preservice courses that some breakthroughs were obtained. The opportunity arose because drastic cuts in staff were to occur and instead of moving towards the mass lecture as was done in a parallel child development course (90 hours) instead, students were given a programme of experiential, problem based and collaborative learning (108 hours) such as we wanted them to use in the classrooms but at their own level and subject. They also had autonomy in learning. The publications Montgomery (1992, 1993, 1996 Chapter 6) detail these procedures and results using Berthoff's research approach. The students' attendance and their final degree results

soared.

Their accounts showed that they now understood the constructivist approaches we were trying to share. What we could not assess was how much influence this would ultimately have on their classroom practice after the initial year in teaching in a climate currently hostile to these methods. Could we have exposed them to cognitive conflict and stress?

However what did follow was the opportunity to design and write a series of distance learning Masters programmes for Middlesex University also embodying constructivist principles. This time it was possible to follow through with the teachers into their practice in the classrooms and obtain written confirmation of their actions and the pupils' reactions to the learning activities. There is documented evidence from this case work that their teaching and the pupils' learning has changed in the direction the programme sets out. The essential component is also that as a masters programme students are given the opportunities to research the theory and research underlying the course and to challenge it, fulfilling all of Broadhead's' (1987) criteria. Research using the Stenhouse case study method investigating these teaching and learning experiences is ongoing and reported in Montgomery 2000, 2002, and 2003 and related articles.

The claim has been made that ways of transforming student learning in preservice and inservice programmes have been identified. It is suggested that a mix of experiential and problem based approaches at the teachers' level have been essential components which they can convert and use in classrooms whilst theory research and practice surrounding them are pursued and then reflected upon. Ten or more examples are to be found in each of the 12

module books in the three MA programmes. Each book has a wide range of **formative** tasks about specific capabilities at student and 'for pupils' levels and two to three **summative** tasks to help develop scholarly criticism and research skills (Montgomery 1991-2005 MA SEN; 1992-2005 MA SpLD; and 2001-2005 MA Gifted Education).

All formative and summative tasks are given detailed written feedback and this has been commented on favourably every year by the external examiners. This feedback is detailed, couched in constructive terms even where aspects need to be challenged or changed and relates theory to practice. It is used as the second main teaching vehicle beside the course materials. In the contact programmes the feedback was also regular and detailed but verbal. Detailed formative feedback on performance is regarded as playing a major role in helping change the students' constructs about learning and teaching. This is not without some foundation, it has been recognised for a long time that such assessment can support learning.

The role of formative assessment in transformational learning

Scriven (1967) first outlined the different forms that assessment might take and that formative and summative assessment or evaluation are terms applied to the functions they serve not the methods that are used. In summative assessment there is an end of term, course or unit assessment to quantify, grade or certify what has been learned or the relative effectiveness of a curriculum (Bloom et al, 1971 p 117). It may not also serve the purpose of formative assessment and this was also found in the appraisal evaluations discussed in Key Text 1.

Bloom et al contrasted summative assessment with another type of assessment which all involved, students, teachers and curriculum makers would welcome because 'they found it so

useful in helping them improve what they wished to do' (p 117), they called this formative evaluation.

To improve standards of teaching and learning, improvement of formative assessment by teachers would be the key but it cannot be a simple matter. According to Black and Wiliam (1998);

> 'there is 'no quick fix' that can be added to existing practice with the promise of rapid reward - each teacher must find his or her own way' (p 15).

They concluded that to improve teaching it was essentially teachers' work in classrooms which was the key to raising standards (Black et al, 2003). In order to do this they maintained that;

> 'systems of external testing should be restructured to ensure this work was supported rather than undermined by them' (p 629).

Leaving teachers and students to 'find their own way' is not an option for teacher educators, they need at least to have some ideas and examples to illustrate the principles which they espouse. These examples can be found in the publications presented at two levels and are summarised below as those responses by the teacher which give the pupil information on performance which will help in its improvement, or the feedback given by the teacher educator to help improve the teachers' performance:-

* Positive Cognitive Interventions such as 'developmental PCI' in all the curriculum chapters
* Miscues analysis in the reading, spelling, handwriting and number chapters in Key Text 2 *Reversing Lower Attainment* summarised in Appendix 1

* The sampling frame method, written record and oral feedback interview in the appraisal research, Key Text 1

* The written feedback on the formative and summative tasks in the three distance learning MA programmes SEN, SpLD and G. Ed, discussed in Montgomery 1998, 2002, 2004)

* The counselling techniques used with pupils whose behaviour is challenging in the book *Managing Behaviour Problems (1989)* and subsequent chapters and modules on SEBD.

Two final points on formative feedback need making, the first is that it is quality of feedback which is essential to transformative learning not quantity. The second is that it is an enabling function so that the teachers in the final analysis can reconstruct their insights and transform their own practice, they own the insights and the development. This can again be related to constructivist approaches to learning as in Key text 1.

2) A coaching system using formative feedback guided by the sampling frame

Students' and teachers' constructs of teaching and learning appear to be intimately connected with their views about discipline and control in classrooms. Their notions revolve round the implications of the roles of pupils as learners, and teachers as sources of knowledge and control. Rigid ideas about these roles lead to misconceived interactions and a failure to maintain class control (Scott MacDonald, 1971). On the other hand student teachers wanting to be friendly, flexible and accepting of pupils often over play this and classroom chaos can ensue as the pupils take advantage of them. In rejecting the role of the authoritarian they had not adapted themselves and their behaviours to the democrat who is legally in control (Lipman et al 1958). Making this transformation was a difficult journey for many students whilst some adapted to it more easily.

Students who failed their teaching practices usually did so because they were unable to gain or maintain class control and inevitably were unable to teach the pupils. The learning outcomes and work rate of the pupils declined and the teachers and supervisors were able to track this but not always reverse it. Student success in one school did not invariably lead to success in another. In supportive settings students had time to learn a wider range of skills and were less likely to fail but then might do so in the next placement.

Research with teachers in difficulties inevitably shows that it is classroom control or lack of it that is the key (Elton, 1989) and that it is the basic low level of unrest in classrooms that is the most concerning to teachers. They complained of two major features, the continuous talking by the pupils when they were not supposed to and annoying or hindering other pupils (Wheldall and Merritt, 1984, Elton, 1989). These findings were replicated in my own studies with teachers in our local LEAs from 1975 onwards (Montgomery, 1984 b, 1989) when requests for *Managing Behaviour Problems* courses were much in demand. It was easy to identify the problems but less easy to resolve them.

At that time it was American research that was most helpful, for example, Becker and Madsen et al, 1969, Kounin, 1970, Blackham and Silberman, 1971; and Scott Macdonald, 1971). The behaviour management interventions they reported were based in Skinnerian conditioning and centred on token economies and shaping procedures with all the attendant problems. These foundation studies are detailed, updated and critically discussed in the text *Managing Behaviour Problems* (Montgomery, 1989) together with methods associated with modelling, social learning and cognitive interventions.

The Sampling frame indicated the targets for observation and coaching, for example:-

CBG This aspect of the sampling frame has its origin in behaviour modification theory and research and was trialled in the case study schools to determine what worked and maintained the pupils' on task behaviour. Extrinsic reinforcement was not a part of the procedures but establishing the teacher as a powerful and positive source of reinforcement was. The aim was to get pupils to want to work and behave well for the teacher because they were intrinsically motivated. However on its own positive behaviour management did not sustain its effects indefinitely and it was essential to couple it with positive learning experiences associated with the curriculum in which the children could feel themselves learning and see the progress that they had made. These positive learning experiences, it was found, also needed to offer what were called 'brain engage' activities to maximise the learning effects, not just require memorising.

Thus the term positive cognitive intervention **PCI** was constructed to describe a whole set of activities which teachers use in lessons as they comment on pupils' work and use in their curriculum planning. It began as an attempt to distinguish behaviour management procedures in CBG from the cognitive interventions which teachers also needed to use. In the 1983 article the engage brain activities appear as designing problem solving and investigative activities and have been expanded over time to encompass what is now called the **cognitive curriculum.** The higher levels of Bloom's (1956) taxonomy were used to assess the cognitive stretch imposed by the materials.

The importance of this area grew stronger and stronger as a response to the transmission models of teaching which were being imposed on the profession. It found its home in critical

and constructivist theory and research as discussed in the Key text (Chapter 5) and others such as *Children with Learning Difficulties* (1990, chapter 3); *Educating the Able* (1996, chapters 4 and 5); and *Underfunctioning Able* (Chapter 9). In the case of PCI the practice was defined and preceded its rationalisation in theoretical terms in the Berthoff model.

The key text explores the relationships between PCI practices and the constructivist theoretical framework. It draws upon the early conceptions of Bartlett (1932), Piaget (1952, 1985), Bruner (1963), and Vygotsky (1978) and the more recent extension of these ideas by Resnick (1989) Paul (1993), Desforges (1996, 2000) on critical thinking and schema theory. The ideas emerge as a formative hypothesis in the 1983 paper, 'Teaching thinking skills in the school curriculum' and as 'brain engage' teaching and learning strategies in the Study Skills Booklet (1983) using research skills and 'Directed Activities Related to Texts (DARTs). In these examples and in the books the pupils have a central role in constructing their own learning and links are made between the strategies and 'deep, strategic and superficial learning' (Marton and Saljo, 1976; Biggs et al 1991).

The detailed observation of so many lessons enabled causal connections to be drawn between tasks set and the pupils' responses and learning outcomes. The notion of mediation in learning (Feuerstein, 1980; 1995) was added to this complex to describe a 'cognitive learning spiral' (Montgomery, 1996 p 120) which could help pupils achieve 'deeper' learning through the exploration of their metacognitions, procedures similar to those used in the now popular 'accelerated learning' (Adey and Shayer, 1990, 1994, Adey 2000).

None of this was designed to deny that transmission modes of teaching can be useful

especially when adults or older pupils are reconstructing knowledge to gain different insights. It was however seen to be ineffective in many classrooms especially with younger pupils or those with learning difficulties as a vehicle for secure and stable learning in the development of concepts. Fitness for purpose was the over riding concern in the search for teaching strategies, the purpose being centred on pupils' motivation and learning.

3Ms and TLP

These two aspects of the sampling frame arose from the observation and reflection on teachers' tactics in lessons to gain and maintain class control and pupil 'on task' behaviour. In particular when things did not go well the reflection concentrated upon what I would do in a similar situation. Suggestions to this effect were put in the notes and then in the next observation a check was made to see if they were used. The students were also questioned about them to see if they had tried them and what were the results. On occasions very quiet coaching was given in the lessons to help the students over particular difficulties and the effects noted.

3Ms - management, monitoring and maintenance are procedures or protocols which teachers use to gain and maintain class control. These are different from the behaviour management procedures which usually are used with individuals but they are related to them and often incorporate them.

TLP - the Tactical Lesson Planning is a term used to show teachers how important it is to phase a lesson content and method to the pupils' learning needs and attention spans. It also records the pace of a lesson and enables the observer to show how the activities of the pupils

can be changed without changing the content. The traditional college plan had too much focus upon the teachers.

When the whole procedure using the sampling frame, rapid recording and detailed written and verbal feedback was given, students and later teachers, found it a helpful and constructive process. They reported that it did help them improve their teaching performance and this was observed to be correct on subsequent observation visits. Of course it can be expected that most students would improve over time as they gained experience in classrooms. The 'method' appeared to speed up or consolidate this process. In a number of cases it helped students retrieve a failing practice. The pilot study was thus seen as a good opportunity to research the method further and with experienced teachers.

Coaching. It is perhaps not surprising that the methods described in the texts contain an element of coaching for from the age of 10 to 17 I had a personal springboard diving coach and later became such a coach. Sizer (1984) first referred to the teacher as coach and this idea gained currency in the 1990s in the UK in relation to 'mentoring' (Little, (1990) and 'facilitating' (Conley et al, 1994) and now peer support. Hargreaves (1994) suggested that such concepts arise in a culture and a profession marked by uncertainty and this may well be true. However in the form of coaching used in these studies there is also an element of teaching involved (Dare, 1982).

For Sizer, coaching principles came to stand for the child centred, performance orientated, democratic pedagogical approach. I should prefer to substitute 'learning orientated' for the child centred aspect but support the rest. According to Cossentino (2004) reviewing research

in the area, the role of coach implies transformation of pedagogical identity, teaching repertoire and the purpose of the school. It is associated with constructivist learning theory. In her research teachers knew what they did not want to do e.g. 'no telling', 'no phonics', 'no basal readers', the 'pedagogy of negation' but not what to do. They needed a coach. The capacity to provide criticism that by design generates stronger more masterful performances is the signal stuff of coaches (Wiggins,1993; Wolf, 1992; Cossentino, 2002). In diving, the coach 'mirrors' the performance to the diver in the absence of video feedback and they discuss the diver's reflections on the execution and its proprioceptive biofeedback. Together they then plan the next moves. There are strong elements of this guided feedback in the appraisal documents.

'Feedback' or criticism may be formative or generative assessment and is distinguished from the more traditional summative approaches. The criticism demands expertise in description, analysis and interpretation (Eisner, 1994) and the coach must be able to communicate that judgment in a way that is intelligent as well as compassionate. The coach needs to be experienced in appraisal (McDonald et al, 1993). In the appraisal research in Key text 1 and the 'before and after' videos we can see all these factors coming together, coaching, formative feedback and transformative learning. Evidence is also accumulating that the same is occurring in the distance education programmes.

3). A method of 'developmental differentiation' has been evolved which promotes inclusion in mixed ability classrooms

In 1990 the National Curriculum Council defined differentiation as the process by which curriculum objectives, teaching methods, assessment methods, resources and learning

activities are planned to cater for the needs of individual pupils (p 2). It went on to detail the two main methods which teachers used as a) differentiation by input or task and b) differentiation by outcomes when a common task is set and different levels of outcome are required of different pupils. Examples are then given for pupils with physical and sensory difficulties, reading difficulties and emotional and behavioural difficulties. In the 1990 *Children with Learning Difficulties* and 1996 *Educating the Able* texts and subsequent ones in the curriculum provision chapters these two approaches are critically examined and their negative consequences in practice detailed as observed in classrooms. Other methods of differentiation were later defined and discussed and their limitations explored particularly in relation to the problems of exclusivity (Montgomery, 2000; 2003).

The NCC strategies were what we had recommended in the 1970s to meet individual children's needs but the results had not been as desirable as planned. Thus it was that a third way was developed called **'developmental differentiation'** in which all the pupils could participate and contribute their own knowledge. It demanded somewhat different whole class teaching strategies which were called 'cognitive process strategies' to distinguish them from the transmission modes or 'expository teaching'. Their purpose was to enable the pupils to contribute to their own learning from their previous experience, discuss and reason with each other and the teacher about the task in progress and to reflect upon their learning. It was found in the case work that these were the methods that interested and motivated the pupils and kept them on task long after the lessons ended. Over time it showed that their learning was less superficial. It was deeper and longer lasting. Support for these approaches were found in Marton and Saljo (1979); Biggs, et al 1991; and Gibbs (1994) although these were

then mainly applied to higher education the principles were applicable even to the youngest pupils in schools (Weikart, 1967; Weikart et al, 1990). Again the practice preceded the theoretical rationale for a while and was not then labelled 'inclusive'.

Inclusive education is a complex and contentious area and has preoccupied teacher educators for many decades although not necessarily couched in these terms. It arose in responding to 'individual differences', in the 'selective schools versus comprehensive education' debate; again in relation to 'special needs in ordinary schools', and then in 'integration versus inclusion'.

The EPPI Centre review (2002, p 7) identified three key perspectives:-

1) 'responding simultaneously to students who differ from each other in important ways, some of which pose particular challenges to the school'

2) 'it is not just about maintaining the presence of students in school but about maximising their participation;

3) 'inclusion is a process which can be shaped by school action'. Perspectives need to be translated into local action.

Barton (2003) argues that inclusion is a means to an end, not an end in itself and Dyson (1999) talks about 'different inclusions', both of which are important considerations. However teacher educators need to be able to communicate the main ideas in fairly concrete terms so that ITT/ITE and INSET students can understand the principles and try out some practices before they can extend and develop their theories of teaching to be inclusive. Black and Wiliam (2003) point to this divide in communicating with researchers and teachers, these different audiences needed different communication documents.

Thus it is that in the publications for teachers presented here integration is described as a process which frequently isolated pupils in their classrooms and effectively segregated them from the main provision when it was 'delivered' by inputs or outputs strategies. In integration the pupils were being helped to adapt to the schools demands. In the methods used in developmental differentiation the teaching methods and the school were being adapted to suit the pupils' needs to participate fully in all the class activities. It is thus that the term 'inclusive education' has been seen to be more appropriate to these methods.

In inclusion it is the school which has to adapt to the needs of the pupils and thus remove barriers to learning. In the very earliest of the publications the foundations of this form of inclusive teaching and learning are established (Montgomery, 1983, 1984, 1985). It is such a strong view that is taken that it underpins the methods of teaching recommended for all children in the later texts on *Children with Learning Difficulties*, *Educating the Able* and those with social, emotional and behavioural difficulties in *Managing Behaviour Problems*.

These studies have helped lead the contribution in the UK to educating the more able within mainstream classrooms and not in separate, segregated provision (NACE President's letter, Appendix 8). A recent summary of this position is to be found in *Able Underachievers*, 2000 Chapter 9 *'Inclusive education for able underachievers: Changing teaching for learning'*. To do this teachers needed guidance on methods which were inclusive and met the needs of the more able in mainstream schools alongside their peers. It was the developmental differentiation methods and cognitive process strategies which were shown to do this. Equally they were found to work and be most appropriate for the pupils with learning difficulties and specific learning difficulties because they involved what was called the 'talking curriculum' as

well as the cognitive curriculum and used a wide range of output responses (Montgomery, 2003). In the cognitive learning spiral the second round of talk was about reflection and discussion of the pupils' processes of learning building their metacognitions such as are used used in 'Accelerated learning' (Adey and Shayer 1991).

Even as a member of the Government's Advisory Group on the Gifted and Talented the inclusion model was promoted. This had the support of the majority of the 'experts' on the panel. The DfES chair and the government had a different agenda and pushed this through. However since then there has been some retreat towards establishing 'thinking skills' and 'assessment for learning' as the foci in the framework for *Teaching and Learning in Foundation Subjects at Key Stage 3* (DfES 2002). But there is not yet a recognition of the fact that there is a complete conflict in these positions in the Department and those set out by DfE (1997) in *Excellence for All Children* that wherever possible children would be educated together in mainstream school and have equal opportunities within that structure.

For example to provide equal opportunities it may be that the whole concept of 'special need' might need to be reviewed and replaced by the concept of 'barriers to learning' (Booth et al, 2002). The language of SEN they argued supports the whole notion of deficit. Inclusion involves decategorisation (Booth, 2003) as integration once did for Warnock (1978).

It is perhaps only the dyslexia research which appears to contradict the general drive towards inclusion in the publications (*Spelling Remedial Strategies*, 1997; *Key text 2* Chapters 6 and 7, 1998 et seq). However this is not the case. My argument has been that with better training of teachers it is possible for them to identify such difficulties in Reception and intervene to

overcome them setting the pupils on a normal course of development. - removing barriers to learning. Remedial provision would not then be required. Until this development is achieved. after school 'catch up' sessions will be required using the specialist APSL (Alphabetic-Phonic-Syllabic-Linguistic) approaches for a two year period (Montgomery, 2000 a b).

In learning changes occur in the brain and this does not take place as readily as is implicit in expository teaching as Stones (2000) wrote, *'Mr Chips changes brains'*. It can be seen from this account that developing inclusion is also very much about change in teachers' thinking. but it also becomes political as it is thrusting in one direction whereas other government policies such as the standards agenda are working in another (Benjamin, 2002). Anything concerned with change is about transformation not assimilation. Transforming the deep structural barriers to change including the social base of the dominant definitions of 'success', failure', and 'ability' is essentially political and this is what is involved in inclusive education (Barton, 2003; Whitty, 2002), as well as teaching and learning

Inclusion may also help to avoid;

> 'the selection and differentiation of pupils leading to the reproduction of inequalities: a form of teaching and learning which is competitive and hierarchical; and the embrace of instrumentalism which harnesses education to the economic goals of society' (Quicke, 1999 p 3).

Let us hope so.

Conclusions

In these publications, systems of formative feedback on teaching performance in classrooms

have been described which teachers report and evidence shows has enabled them to improve their own performance.

In writing this it is necessary to be aware of the logical fallacy of "Affirming the consequent".

> 'If teaching improves, more students will pass their exams. More students have passed their exams. Therefore teaching has improved' (Brignell, 2004 p 58).

There is no necessary causal connection between teaching input and pupil learning outcomes (Dockrell, 1989).

For these reasons pupils' work, on-task behaviours, self reports, teacher self report as well as the observations, summative assessments and videotapes are all data which have been collected in the intervention studies to help support any claims made for improvement. In randomised presentations the written records and video extracts of before and after sessions have been presented to many hundreds of experienced teachers and with very rare exceptions they were able to determine which extract is the 'after' intervention condition. The same procedures have been applied to the pupils' work with equally clear and positive results.

Appendix 4 contains the list of schools and conferences at which the appraisal method was more recently shared and is an indication of its perceived relevance in the profession as all the presentations resulted from 'word of mouth' contacts not advertising.

It is proposed that:-

1). methods of transformational learning have been developed for teachers and students in contact and distance education programmes;

2) a coaching system using formative feedback has been evolved which has helped teachers

improve their general teaching performance;

3). a method of 'developmental differentiation' has been evolved which promotes inclusion in mixed ability classrooms;

Final thoughts

Reflecting on these chapters it can be seen that in a sense the transformational learning, the formative feedback and coaching system have all been geared to the central purpose of helping teachers with developmental differentiation in classrooms, or inclusive teaching and learning methods. The overriding purpose has been to enhance teachers' professional capabilities and professionalism. Theory developing and action research have been important strategies in all the ITT/ITE and INSED work as well as evidence based research as I have sought to improve my own understanding and performance

This professionalisation agenda which I have tried to pursue has been in opposition to a government led deregulation agenda which has favoured dismantling teacher education institutes and removing their monopoly (Cochran-Smith et al, 2002). This other agenda in the UK has emphasised attainment of government-defined competencies, with schools seen as the primary organisations in the preparation of teachers. It is associated with the view of teachers and teacher educators as technicians simply implementing policy. Learners deserve better than this.

In defining quality in higher education, there is no general agreement on its nature and it is often not defined at all. In the UK funding and status are very much linked to judgments about quality where it can refer to very high standards, the level and per cent of passes.

consistency, fitness for purpose, or value for money. Shah (1998) questions who defines these standards, the administration it seems, but there are other applications of the concept. Nightingale and O' Neill (1994) view quality in teaching and learning in higher education as transformative:-

> 'Our notion of what is the essence of higher education is exactly this, transforming the student, empowering her and enhancing her by developing higher order intellectual capacities which allow her to critique her experience and herself' (p 10, cited in Shah, p 33).

They included in this, personal and social qualities as well as intellectual ones. Outcomes would include communication skills, problem solving abilities, interpersonal skills, planning and strategic thinking abilities and so on. These are qualities which Stephenson and Weil (1988) had defined as transferrable skills and called 'general and specific capabilities'. These topics have been included in the publications as 'the cognitive curriculum' for both pupils and teachers in training and education. The final word on quality in education is left to Frith and Mahoney (1994),

> 'The enormous amount of research carried out in the 1980s is not old fashioned irrelevance, it was and still is central to the task of improving the quality of education' (p 2).

As I write the ESRC (May 2005) have sent out a briefing paper on 'Assessing quality in applied and practice - based educational research' and it is apposite to include it. Four key conclusions are made and have also been raised in different ways in this context paper, especially items three and four. They are:-

* Traditional barriers between pure theoretical research and applied research in education are being broken down.

* Exiating definitions of practical research are too descriptive and existing models that seek to mesh the theoretical and the practical maybe too simplistic

* Existing quality assessment mechanisms may not be appropriate measures of effectiveness of applied and practice based research.

* A multidimensional understanding of quality should be developed.

On the basis of their conclusions the researchers propose a four dimensional framework for assessing quality in practice based educational research. It is not intended to be prescriptive but illustrative and is set out as follows:-

- DIMENSIONS OF QUALITY -

SUB-DIMENSIONS	Epistemic methodological and theoretical robusrness	Technological	Capacity development and value for people	Economic
	Trustworthiness	Purposivity	Plausibility	Marketability and competitiveness
	Builds on what is known + contribution to knowledge	Specificity and accessibility	Partnership, collaboration & engagement	Auditability
	Propriety	Concern for enabling impact	Receptiveness	Feasibility
	Paradigm - dependent criteria	Flexibility & operationalisability	Transformation & personal growth	Originality

(ESRC, 2005 p. 4)

A positive 'mark' could be entered under each of the 16 boxes in relation to the research presented in this context paper. What of course is now needed is a means of assessing the strengths of the contribution within each of the boxes to determine the quality, a quality index. Different researches would be expected to have different strengths or weightings. Once again we need a definition of the translational variables just as was needed in the appraisal research which was also determining quality, the quality of a teacher's teaching.

The ESRC have chosen to leave this most difficult task, the development of the performance indicators, to the 'various evaluation agencies' who might use the framework. This will no doubt lead to similar disputes and confusions as were identified in the attempts to improve the quality of teaching and learning in these publications.

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APPENDIX ONE: SUMMARY OF KEY TEXT TWO

Montgomery, D. 1998 (reprinted 2003) Reversing Lower Attainment London: David Fulton

The second and complementary key text entitled Reversing Lower Attainment summarises the research and development work in the other five LDRP programmes, which have also been published as separate texts. In the current context it would have been better to have been retitled *Strategies for Reversing Lower Achievement* or *Removing Barriers to Learning* but the publishers were unable to arrange this for the reprint.

The introductory chapters analyse the nature of lower attainment and the likely origins and reasons why pupils across the ability range can underfunction in school and attain standards lower than expected. Section two of the text is mainly descriptive rather than analytical. The purpose was to assemble and summarise my current thinking and research on teaching and learning relevant to teaching lower attainers in mixed ability settings in primary and secondary classrooms. Thus chapters 5-13 contain examples of relevant theory and successful practice drawn from each of the different LDRP programmes and my other research.

In the first three chapters the special learning needs of children with learning difficulties, specific learning difficulties and the disaffected and demotivated are discussed. Chapter four synthesises my personal analysis and approaches to differentiated provision prior to showing how this may be applied in classrooms. For me teaching is the key to helping many children over their difficulties, teaching which is not so dependent on verbal transmission as is customary in schools. My aim is to make lessons more participative and involving for the learners and helping them to develop more autonomy in their learning.

The next four chapters cover the teaching of basic skills such as speaking and listening, handwriting, spelling and reading and remedial strategies where appropriate for individuals and the whole class from primary through into the lower secondary school. The next three chapters deal with study skills, writing methods, thinking and problem solving as cross curricular themes and strategies capable of being used in any subject area. Chapter 12 discusses links between reading capabilities and number and approaches to identify and deal with difficulties by using miscues and pattern analyses. The role of understanding problem solving and mediation in developing number concepts are explained and linked to recommendations in official reports over the last 20 years.

The final chapter is a summary of the classroom management strategies developed over the period of the research which can be used to calm children exhibiting difficult behaviour and adopts and ecosystemic approach. These approaches are to be found in expanded forms in the text *Managing Behaviour Problems* (Montgomery 1989; and 1999 chapter 5).

Whereas many of the chapters rely on textual research revising, reworking, updating and giving the results from testing in classroom settings, certain chapters contain original material, theory and ideas based upon my own research. These chapters are those on handwriting

which is developing into my current renewed area of investigation (Montgomery, 2003 b, 2004 b), the reading research undertaken in five reception classrooms. It develops a theory and practice of teaching early reading as a pattern recognition skill separate from spelling and writing (Montgomery, 1977) and a pre test and training manual and materials which were published by NFER (Montgomery, 1979). Pupils trained in the pattern recognition techniques made significant gains over controls, except two children who were potentially dyslexic. This led to the dyslexia research to try to find the origin of their problems.

The dyslexia research focused upon spelling and new theory of the origin of dyslexia is detailed and how it was uncovered in series of controlled experiments with 288 dyslexics and 90 control subjects. From this a remedial training technique was devised tested. It was shown to overcome the problem and could be used by reception class teachers. The basic problem underlying phonological segmentation difficulties was found to be an articulatory awareness problem. It was found that in older pupils this could be remediated by a 'multisensory mouth training' programme attached to any APSL (Alphabetic-Phonic-Syllabic-Linguistic) programme (Montgomery, 1981 b; 1984 c; 1990; 1997 a and b; 2000 b).

The chapters on listening and speaking, study skills and thinking and problem solving relate specifically to the research detailed in further texts on teaching *Children with Learning Difficulties* (Montgomery, 1990), *Educating the Able* (Montgomery, 1996); and Able Underachievers (Montgomery (ed), 2000). The essence of these chapters and books is that the same methods can be used if the teaching methods are modified so that lessons can be **inclusive.** The process is described as 'developmental differentiation' in which the teaching and learning strategies are designed so that pupils may contribute their own knowledge to the task and thus be enabled to reach higher learning outcomes and deeper levels of understanding. In key text one these are summarised under the construct of PCI.

APPENDIX TWO:

SUMMARY OF NUMBERS OF CLASSROOM OBSERVATIONS

1969-1983 Phase One:

a. Annual supervision of a mean of 6 students on three teaching practices times 6 visits
(36 x 13) 468 observations

b. Annual education group single visits; Years 1-3, groups of 25-34 students
(25 x 13) 325 observations

c. Moderation visits per year over a ten year period 1973-1983
(5 x 10) 50 observations

1983-1993 Phase Two:

a. Pilot project and demonstration visits
(4 + 4 + 4) 12 observations

b. Annual supervision of a mean of 5 students on 3 teaching practices times 6 visits
(5 x 6 x 10) 300 observations

c. Research project 1985-1988 repeated measures with 11 successful teachers, primary and secondary
(11 x 2) 22 observations

d. Demonstration appraisals and further retrieval cases 1985-1989
(6 + 4 +4) 14 observations

e. Higher education observations for appraisal 1991-1993
(8 observations) (interviewee observations of teaching 10) 18 observations

1997-2001 Phase Three:

a. Single observations and case work demonstrations, secondary schools
12 observations

b. Single observations and case work demonstrations, Forge Lane Infant and Nursery School
7 observations

TOTAL OBSERVATIONS: 1246 Lesson observation and feedback sessions

APPENDIX THREE:

LEARNING DIFFICULTIES RESEARCH PROJECT PUBLICATIONS

Series One: Teaching and Learning Methods
1983 *Learning and Teaching Strategies: Study Skills*; 2nd edit. 1991, 3rd edit. 1999
1982 (ed) *The Education and Welfare of Children in Hospital*
1988 (ed) *Ways and Means: Collaborative Problem Solving in Classrooms* (S. Bowers and L. Wells)

Series Two: Literacy and Dyslexia
1983 (ed) *Teaching Reading through Spelling*
Vol 1 2A *Diagnosis*
Vol 2 2B *The Foundations of the Programme*
Vol 3 2C *The Early Stages* (P. Morse and M. Prince Bruce)
Vol 4 2D1 *The Later Stages: Part One* (M. Prince Bruce)
Vol 5 2D2 *The Later Stages: Part Two* (M. Prince Bruce)
Vol 6 2E *The Handwriting Programme* (P. Morse)
Vol 7 2F *The Spelling Notebook* (L. L. Cowdery)
1997 *Developmental Spelling: A Handbook for Teachers*

Series Three: Social, Emotional and Behavioural Difficulties
1984 *Managing Behaviour Problems in Schools*

Series Four: Teaching Practice and Appraisal of Performance
1984 *Evaluation and Enhancement of Teaching Performance*

Series Five: The Needs of More Able learners
1985 *The Special Needs of Able children in Ordinary Classrooms*; 2nd edit. 1991
2000 *Effective Teaching and Learning Strategies for the Gifted and Talented*

Series Six: The Needs of Learners with Difficulties
Children with Learning Difficulties/ Lower Attainment

Most of these publications were taken up by publishers and appear as books in the publications list. There are also other books and papers individually and jointly authored which are additional to both lists as well as chapters in others' books.

APPENDIX FOUR:

SCHOOL TRAINING DAYS AND LEA CONFERENCES FOLLOWING SHA CONFERENCE 1998 SHOWING THE PATTERN OF CHANGE

Secondary Heads Association (SHA) March 20-22 1998 by personal invitation from the president elect. 'Classroom observation and positive appraisal for heads and deputies' 2 hour Lecture /workshop

1998

1. Forge Lane Infant and Nursery School, Hounslow 1997-1998 Whole school appraisal and school development plan including several days case work

2. Gaynes School Upminster May, Appraisal training and Effective teaching and learning: Senior staff

3. Admiral Lord Nelson School, Portsmouth, June Appraisal; SMT

4. Langley Park Girls' School, Beckenham, June Appraisal; SMT

5. City of london Girls' School, Barbican, July Appraisal; Senior staff

6. George Green Secondary School, Isle of Dogs, September and October; case work

7. Association of Heads of Independent Schools, London, October 15th; Appraisal

1999

1. Ashstead High School, Middlesex, January, Appraisal; all staff

2. Admiral Lord Nelson School, Portsmouth, Appraisal; Senior staff

3. Langley Park Girls' School, Beckenham, Appraisal; Senior staff

4. City of London Girls' School, Barbican, Appraisal; all staff

5. SfE - Stands for Education, National Conference, London 2-3 March 'Differentiation of the ordinary curriculum for the Gifted and Talented'

6. Hampshire Secondary Heads Conference, Bournemouth 11th March, 'Lesson observation and retrieving failing teaching'

7. Wavell School, Farnborough, April, 'Lesson observation and positive appraisal' Senior staff

8. NACE East, Regional Conference, Impington, 7th June ' Curriculum provision for

the highly able'

9. Haverhill Headteachers Conference, Brighton, 19-21st June, 'Appraisal through lesson observation'

10. Wavell School, Farnborough, July, 'Helping teachers in difficulty' Demonstration case work for Senior staff

11. Hampshire Special School Headteachers Conference, Botley Park, July 15th
a. 'Positive appraisal through lesson observation'
b. 'Effective learning and teaching' Lectures and training workshops

12. Priestlands School, Lymington, September, 'Lesson observation and positive appraisal' all staff

13. Eggar School, Alton, September, 'Lesson observation and positive appraisal' all staff

14. Sir John Lawes School, Harpenden, October, Ashridge Management Centre, 'Using lesson observation to improve teaching' all staff

15. Langley Park Girls' School, Beckenham, 'Lesson observation and positive appraisal' all staff

16. Hampshire Primary Headteachers' Conference, Poole, November 3rd, 'Appraisal through lesson observation'

2000
1. Harriet Costello School, Basingstoke, February, 'Lesson observation and positive appraisal' senior staff

2. Gaynes School, Upminster, March 'Lesson observation and positive appraisal' all staff

3. Sheffield LEA Conference 28-29th March, 'The cognitive curriculum and the needs of the highly able' 200 delegates

4. Royal Borough of Kensington and Chelsea, Headteachers Conference, Brighton, April 6th 'School improvement through shared classroom observation'

5. Wavell School, Farnborough, September Appraisal case work

6. Warblington Comprehensive School, Havant, October ' Lesson observation for school improvement' all staff

7. Robert Mayes School,Odiham Hants, October 'Lesson observation and positive appraisal' all staff

8. Havant, 22nd October 'Lesson observation and positive appraisal' all staff

9. NACE Regional Conference Ilminster 5-6th November 'Curriculum provision for the gifted and talented'

10. Jews' Free School, London, 14th November,Curriculum provision for the gifted and talented' and 'Helping Able Underachievers' Training day, all staff

11. Wavell School, Farnborough, 26-27th November 'Lesson observation and positive appraisal' all staff; demonstration case work

12. Harriet Costello School, Basingstoke, 4th December 'Lesson observation and positive appraisal' all staff

2001

1. Dundee LEA Conference and training day, May 'Reversing Lower Attainment'

2. Westminster Institute, Oxford Brookes National Conference for Secondary G & T Co ordinators, St Catherine's College Oxford, July 3-4th two sessions

3. St Catherine's Technology College, Clapton London, July, 'Lesson observation and positive appraisal' senior staff

4. Westminster Institute, Oxford Brookes National Conference for Primary G & T Co ordinators, St Catherine's College Oxford, September 26th 'Able underachievers'

5. Birkenhead, The Wirral G and T Co ordinators, November 22nd 'Able underachievers'

6. Greenwich G and T Co ordinators, November 25th Eltham Green Centre, London 'Able underachievers'

2002

1. Graveney School, Belmont London, 22nd March 'Curriculum provision for the gifted and talented' all staff

2. Orchard House School, Chiswick, 26th June ' Teaching cursive writing and developmental spelling'

2003

1. Optimus Publishing, London Conference March 25th 'Able underachievers'

2. NACE National Conference, St Neots, July 4-8th 'Able underachievers'

2004

1. NAGC London Conference, March 13th 'Removing barriers to learning'

2. Special Needs of Able Pupils (SNAP) Conference, Glasgow June 14-15th, ' Issues in gifted education and how to make inclusive provision'

3. The International School, Paris, November 25-26th 'Lesson observation and positive appraisal' senior staff

APPENDIX FIVE: MEMBERSHIPS OF PROFESSIONAL ORGANISATIONS

1.a BPS Associate Fellow of the British Psychological Society, 1969-
b Chartered Psychologist, 1992-

2. NASEN - National Association of Special Educational Needs, 1987-

3.a NACE - National Association for Able Children in Education 1983-
b Editor in Chief, NACE Journal *Educating Able Children,* 1999-

4. ECHA - European Council for High Ability, 1988-

5 WCGTC - World Council for Gifted and Talented Children, 1996-

6. SEBDA - Social Emotional and Behavioural Difficulties Association - 1997- (formerly AWCEBD)

7. a WEF - World Education Fellowship (English Section) , 1973-
b Chair of WEF GB 1982-86

8. HIG - Handwriting Interest Group 1999-

9. BERA - British Educational Research Association, 2000-

10. ISATT - International Study Association for Teaching and Teachers 2002-

MEMBERSHIP OF NATIONAL BODIES

1.a The Fawcett Society, 1972-
b Member of the Education Committee 1984-1989
c Member of the Executive Committee 1979-1981 and 1989-1992
d. Fawcett Trustee 1996-1999

2. Member of the CNAA Advisory Board for Careers Education and Guidance and Teacher Education 1978-1981

3. Member of the GTAG - Government Advisory Group on the Gifted and Talented, 1998-2001

4. Member of the Awards Committee of the College of Teachers 1999-2002

5. Evidence submitted to the House of Commons Select Committee, Education and Employment Sub Committee 3rd Report 1998-1999 *Highly Able Children* HC 22 The Stationery Office

APPENDIX SIX: COURSES DESIGNED AND DEVELOPED

1. 1971-2 Revision of the Psychology of Education Courses (Gipsy Hill College)

2. 1972-3 Inservice B.Ed (CNAA) structure, Psychology of Education Year 1 course and Year 2 Clinical Option

3. 1973-4 Structure and writing of new B.Ed Honours programme, 3 year Main Subject Applied Psychology programme, and Year 4 Psychology of Reading Honours

4. 1975-1985 A portfolio of Custom Courses for schools and LEAs (Kingston Polyt.)

5. 1978 Psychology of music and Ethnomusicology Courses the BA Music Education

6. 1990-1991 Redesign of the Full time B.Ed including the Year 4 Psychology of Reading, and the addition of a Year 4 option in Learning Difficulties.

7. 1985 Inservice One year Cert. Ed. SEN as a part time and distance programme

8. 1986 M Ed Structure, and Education Management and Learning Difficulties Option courses

9. 1987-8 Modular Diploma in SEN with LEAs(Not validated as the modular concept was not approved, content satisfactory). Before its time

10. 1988-9 Redesign of the Year 4 B Ed Learning Difficulties programme

11. 1990-1 Inservice MA/M Ed structure for a portfolio of programmes (Middlesex Polytechnic/University)

12. 1991-2 Writing of the MA SEN distance learning programme

13. 1993 Writing of MA SpLD distance programme

14. 1994--5, 1998, 2000-1, 2003 revisions and updates

15. 2003 Writing of the MA Gifted Education distance programme

16. 2004-5 Writing of modules for an MA SEBD

17. 2005 Updating MA SpLD

APPENDIX SEVEN: CONFERENCE PAPERS PRESENTED FROM 1998

1998

Strasbourg: Precocious and Talented Youth in France. Council of Europe, June 3rd
'Curriculum differentiation, models and strategies'
'Needs of underfunctioning and highly able students'

Oxford: 11th ECHA/NACE/QCA International Biennial Conference Sept 18-21
'Practical inservice teacher education by distance learning' Invited paper
'Remedial teaching methods with highly able dyslexics'

Cirencester: AWCEBD/SEBDA Conference Oct 2-3
'More able students with EBD in Primary schools' Invited paper

Prague/Benesov: EASE (European Council for Special Education) Conference Nov 10-22

1999

Istanbul: World Council for Gifted and Talented Children (WCGTC) Aug 2-5
'Effective teaching and learning for gifted students'

2000

Stockholm: 27th Annual International Congress of Psychology July 23-28
'Retrieving failing teachers'

Vienna: 12th ECHA (European Council for High Ability) Conference Oct 10-13
'Making provision for gifted children in mainstream'

2001

Stockholm: Invitation Conference to Advise Stockholm Education Department and Schools May 9-11
'The curriculum provision needed for education able children in mainstream schools' Keynote paper

Barcelona: WCGTC Biennial Conference Jul 31-Aug 4
' Able underachievers'

2002

Bournemouth: DECP Conference, British Psychological Society Jan 5-7
'Retrieving failing teachers'

Harrogate: 10th International Thinking Skills Conference June 10-14
'Teaching for critical thinking in distance learning MA programmes

Uppsala, Sweden: International Conference on Dyslexia August
'Dyslexia practice into policy'

Rhodes: 13th Biennial ECHA Conference October 9-13
'Curriculum provision for able underachievers' Invited paper
' Double exceptionality'

2003
London: National Conference. Optimus Publishing Company March 25
'Able underachievers' Keynote paper

Amersfoort, Netherlands: National Conference on Talent April 8-10
'Curriculum provision for able learners in mainstream' Keynote paper
'Able underachievers' training workshop

St Neots: NACE National Conference July 4-5
'Able underachievers'

Adelaide: WCGTC Conference Jul 31-Aug 5
'Double exceptionality' Keynote paper
'Mainstreaming gifted education' Training workshop

Edinburgh: BERA National Conference Sept 10-12
'Issues in gifted education'

2004
London: NAGC (National Association for Gifted Children) Conference Mar 13
'Barriers to learning' Keynote paper

Oxford: DCD (Developmental Co ordination Difficulties) National Conference Mar 23-24
'Analysing and remediating handwriting difficulties'

Glasgow: Glasgow University Staff Conference June 15
'Current issues in gifted education'

Glasgow: Special Needs of Able Pupils (SNAP) Regional Conference Sept 1-2
'Double exceptionality' Keynote paper

Pamplona: 14th ECHA Biennial Conference Sept 10-13
'Double exceptionality'
'Teaching the teachers of the gifted by distance learning'

2005

London: NACE LEAs Conference Keynote, April 23

Trieste: 6th International DCD Conference, Poster presentation May 17-20.

Dublin: Curriculum Principles and Practices in Teaching the Gifted and Talented, Keynote, June 10-11

Glamorgan: Annual BERA Conference, Paper, September 14-17

Leuteren, The Netherlands. National Conference on Gifted and Talented Keynote and paper, September 22-23

National Association
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in Education

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November 19th 2003

Dear Diane

Invitation to become a patron of NACE

Following the valued support you have always given to NACE, I am writing to ask whether you would be prepared to be a patron of the Association.

Your work is well received by all NACE members and they express their appreciation of the sound theory and practical application you always bring to your work. Their admiration of your work is clear and their comments show that the challenges you outline will influence their thinking and practice. Having you as a patron would significantly strengthen the confidence we are able, as an association, to offer our members.

Patronage involves showing a general interest in our work; attendance at an annual event, for example, opening an annual conference or annual dinner; linking us, where appropriate, to people in your network and giving us permission to place your name on our stationery.

We are selecting patrons from the large network of highly-respected professionals, operating at national and international level, who have contributed to our work and share our ideals in improving education for more able pupils.

I do hope that you will be able to undertake this role for NACE.

With thanks and best wishes.

Yours sincerely,

Belle Wallace
President of NACE